Frequently Asked Question's

What is EcoSystem?

- The name of the City of Scottsdale's Environmental Management System.

What is an *Environmental Management System (EMS)*?

- Structured, measurable system for managing environmental impacts
- Comprehensive, similar to VPP
- Designed to be proactive and preventative
- A method for continuously improving

What is the difference between ISO 14000 and 14001?

- ISO 14000 series of environmental management standards provides systems and tools to integrate sound management decisions with the current "command-and-control" system.
- ISO 14001 environmental management system (EMS) establishes a process for applying consistent and rational human and financial resources as well as management know-how to the organizations existing environmental studies.

What is ISO 14001?

- International voluntary standard for environmental performance
- Accepted in business and industry
- Process that leads to certification and recognition for leadership
- Broader environmental focus than mere "compliance"

What is the "Municipalities Pilot Project"?

- EPA Pilot Program to Develop EMS/ISO Standards Specifically for Local Governments
- Only 9 Government Agencies Selected to Participate
- A Process to "Model" the Results, Mentor other Government Agencies
- A High Priority for EPA and the Arizona Attorney General's Office

What is the State's EMS Pilot Project?

- Data gathered on the following areas:
  -Compliance, Performance, Stakeholders, Pollution Prevention, EMS Design and Cost/Benefits
- Data collected every six months
- ADEQ policy decisions can be based on analysis of data
- Involved partners:
- Motorola FPDD, Allied Signal, Yuma Proving Grounds, City of Scottsdale

What is the Difference Between the Federal and State Pilots?

- The Federal pilot consists of municipalities and the objective is to record the success of the EMS/ISO 14000 implemented on that level
- The state pilot wishes to implement a corrective action element along with management review which will improve environmental compliance, reduce potential liabilities, promote positive corporate image and increase environmental awareness among employees

Why is the City Participating?

- Scottsdale's Reputation as Innovator
- We Have Many of the Pieces in Place
  Mission Statement
  Citizen Expectation for Environmental Performance
  GangGreen Communication Program
  Environmental Training Programs
  Helps Us Develop a Comprehensive, Structured Environmental Management System

What are the Benefits?

- Reduced liability exposure
- Cost savings
- Increased efficiency
- Enhanced public credibility
- Sustainability
- Creates future rather than predicting it
- Improved environmental performance

When Did the EPA Pilot Project End?

- August 1999
- The City EMS continues until completed

How Many of the City Departments Are Involved?

- There are 2 City departments involved in the Municipalities Project
- All 14 City departments will be part of the completed citywide EMS

What is an Aspect?

- An aspect identifies potential environmental attributes of the organization's products, activities and services

What is an Impact?

- Some of the environmental aspects identified above will have a real impact on the environment

How Are the Impacts Rated as Significant?

- A ranking system of criteria will be reviewed and revised to evaluate the significance of each environmental impact
- Each department will generate a listing of environmental aspects and impacts, each work unit will utilize a numeric ranking/rating system for each task, service, product impact
- Each work unit will be consulted with to verify their significance rankings and audit tasks, services and products or services
- Significant impacts will be determined organization wide

Is This Just a Fad?

- No, this is a process the City will use to monitor the continual improvement of its environmental performance
- This is also a better, more efficient way the City to operate. Results have shown that, aside from environmental improvement, an EMS will actually lower operating costs

What is My Role in This Process?

- Cooperate by documenting compliance tasks procedures
- Go beyond compliance by seeking out what more can be done in the way of recycling, conserving energy and conserving resources
- Continue to operate in the way that the City has for years

What is an Environmental Management System?

A structured, measurable system for managing environmental impacts (e.g., monitor, measure and report waste volumes and air pollution emissions)

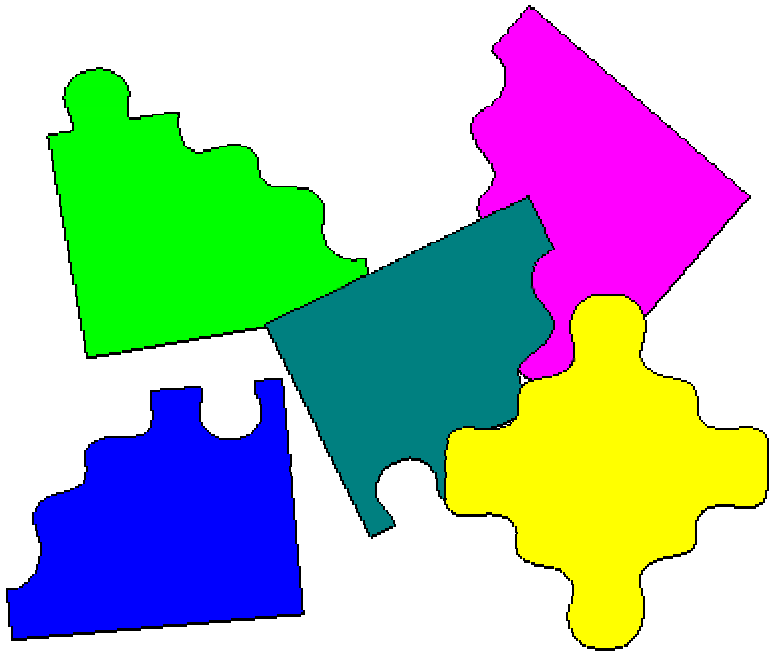
- A proactive and preventative program
- The environmental equivalent of the Occupational Safety and Health Administration's Voluntary Protection Program
- A process that enables continuous improvement

What are ISO 14001 standards?

A series of voluntary standards in the environmental field, established by an international organization of nations established in 1946, intended to provide organizations with the elements of an effective environmental management system which can be integrated with other management systems to assist organizations in achieving environmental and economic goals.

What does this mean for Scottsdale?

By applying ISO 14001 standards, the City can utilize the experience of business and industry and apply this type of process and thinking to our environmental programs. Past and present environmental efforts have formed many of the pieces that will be instrumental in Scottsdale's development of an EMS. What was missing was a comprehensive and structured plan to put them together.



What are the benefits to the City of Scottsdale?

- Improved environmental performance
- Enhanced customer trust
- Improved regulatory partnerships
- Reduced liability
- Improved compliance
- Improved public image
- Improved environmental sustainability indicators
- Reduced Costs

EMS enables us to create our future rather than predicting it!

Local Government Pilot Project

The City of Scottsdale was recently selected by the Environmental Protection Agency as one of eight local small to medium sized governmental units nationwide to participate in a pilot program to develop an EMS. The EPA's project goals are to:

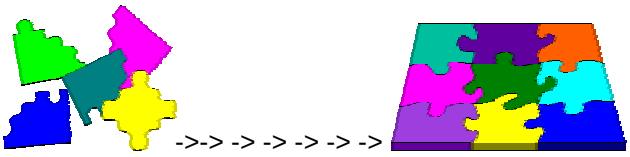
- Provide technical assistance to participants in developing their EMS
- Develop a model governmental EMS program for others to follow

Participants will evaluate and track their environmental performance, stakeholder involvement, and pollution prevention activities. Additionally participants will collect and record data about the benefits and challenges of the project. The project is a high priority for both the EPA and the Arizona Attorney General's Office.
Scottsdale was selected for our outstanding leadership reputation and the quality of our EMS puzzle pieces (i.e., existing environmental program elements). Ultimately, the City of Scottsdale will become a mentor for other public entities.

How will we accomplish our mission?

Scottsdale's goal is to mobilize our energies to fit the already formed puzzle pieces into one comprehensive environmental management system. It is our intent to ensure a well developed and comprehensive plan which includes:

- Recreating the VPP experience and process
- Creating staff teams and business/industry partnerships
- Analyzing existing processes and develop performance metrics
- Documenting and sharing internal experiences among work units
- Listen and learn from the private industry who have already received ISO14001 certification



What are the first action steps in our plan?
(Kickoff Date - January 1998)

- Create staff and advisory teams
- Conduct workshop
- Solicit feedback from the Environmental Quality Advisory Board
- Implement the process

Please feel free to copy or share this information with others.
For additional information about Environmental Management Systems, the Governmental Pilot Program or ISO14001, please visit the ISO web site at www.iso14000.net

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Document Titled: EPA Pilot Summary			When Printed Approximately 2 Pages

Implementing ISO 14001 Environmental Management Systems at the Municipal Level

Seven municipalities, a county, and a state prison system have said yes to the ISO 14001 Environmental Management System. The U.S. Environmental Protection Agency's Offices of Wastewater Management and Compliance have partnered on a two-year project to assist small and medium-sized public sector organizations to develop and implement an ISO 14001 Environmental Management System (EMS).

Each participating municipality has selected a facility/organization (a"fenceline") in their community to implement the EMS.

"Fencelines" include:

City/County	Facility Implementing EMS
Town of Londonderry, New Hampshire	Public Works
City of Lowell, Massachusetts	Wastewater Treatment Facility
Wayne County, Michigan	Wastewater Treatment Facility
City of Indianapolis, Indiana	Public Works
Massachusetts Department of Corrections	Corrections Facility
City of Gaithersburg, Maryland	Public Works
Lansing Board of Water & Light, Michigan	Electric Generating Facility
City of Scottsdale, Arizona	Municipal Government
New York City, New York	Transit Design

The municipalities initiative represents a unique opportunity for small and medium sized government organizations to test the benefits of an ISO 14001 EMS.

"The use of voluntary environmental management systems (EMS) by organizations is rapidly increasing around the world. These systems provide a framework for organizations and communities to more effectively manage their environmental obligations, including those required to comply with applicable statutes and regulations. In addition, these systems can be useful for moving beyond compliance, improving overall environmental performance, and making greater use of pollution prevention approaches."

Jim Horne, EPA Office of Wastewater Management

"Hopefully this pilot project will demonstrate that the EMS approach for managing environmental activities is not only applicable and useful to private sector entities but also for local government operations."

John Dombrowski, EPA Office of Compliance

EPA selected the Global Environment & Technology Foundation (GETF) to lead the Municipalities Initiative and to provide on-going training, technical assistance, and EMS coaching to each of the nine municipal organizations throughout the two year project. Participants are using globeNet(tm), GETF's premier ISO 14000 website, and GETF's Implementation Toolkit of print and electronic training materials to accomplish the milestones in each phase of the project.

The municipalities have participated in two intensive implementation workshops and are now working through the Planning phase of the ISO 14001 standard (section 4.3). Some of the activities in this phase include: developing procedures for identifying aspects and impacts associated with the organizations activities, products, and services; developing a procedure for setting objectives and targets; providing training and awareness at each relevant level and function; implementing the EMS procedures; and developing environmental management programs.

Participants keep connected between workshops via frequent e-mail, Internet and Intranet, and conference calls. Additionally, GETF provides on-site technical assistance and coaching. Monthly progress reports track process decisions, benefits and hurdles, costs, and staff commitment. See globeNetTM for the latest news on the project.

Municipal Project Managers are seeing numerous benefits in the Planning phase of the project.

"Developing an EMS helps significantly in reducing, if not eliminating our risk of violation with regard to compliance issues before they even arise."

"Organizational benefits that have been realized include better interdepartmental communication, allocation of resources, and time to accomplish defined tasks."

"The facility process block diagrams we have created have a great potential for training and operational problem solving. One is already in use for a regulatory permit issue."

"*The facility has seen many benefits so far:*

- *Identifying responsibility for compliance issues*
- *Identifying areas of concern with regard to environmental issues*
- *Better communication between divisions*
- *Documentation of procedures and work instructions provides consistent and reliable methods of dealing with environmental aspects*
- Identification of goals to lessen the environmental impact of the towns activities."

"There has definitely been an increase the knowledge base of environmental, regulatory, and legal policies and procedures that impact the facility."
"*Each division of Public Works is more aware of what is going on within the whole Department, which also improves communication."*
"The greatest benefit has been defining roles and responsibilities with regard to legal requirements."
"The Training Division has become more aware of additional training needs within operations."
"There is a wider organizational understanding of legal and regulatory requirements."
"While each division of Public Works is aware of what the current regulations are, there is now a consolidated list of those regulations and a designated person responsible for maintaining records and ensuring the Town meets its legal requirements."

For more information on the Municipalities Initiative, please contact Faith Leavitt (faith.leavitt@getf.org), Municipalities Initiative Program Director, at (703) 750-6401, or visit www.iso14000.net

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Other EMS Web Sites and Resources

- International Organization for Standardization (ISO) Home page **http://www.iso.ch/**
  ISO's own international home page featuring information on both ISO9000 and ISO14000.

- GlobeNet - Your Complete EMS Source **http://www.iso14000.net**
  Home page for Roy F. Weston's Knowledge Systems & Solutions Divisions

- Global Environment & Technology Foundation **http://www.getf.org**
  Home page for Global Environment & Technology Foundation (GETF).

- Londonderry, NH: Sustainable Londoderry and the Eco-Park
  http://www.londonderry.org/
  An EPA Municipalities Project Participant's ISO 14000 website subpage

- NSF International **http://www.nsf.org/info/aboutnsf.html**
  ISO 9000 and IS0 14000 Resources

- EPA Website **http://www.epa.gov**
  Federal EPA home page.

- EPA Region IX **http://www.epa.gov/region09**
  EPA Region IX home page (Region IX includes Arizona, California, Hawaii, Nevada, the Pacific Islands subject to U.S. law, and approximately 140 Tribal Nations)

- Arizona Department of Environmental Quality (ADEQ) **http://www.adeq.state.az.us**
  Home page for ADEQ, with subpages for air, water, solid and hazardous waste, pesticides and toxics, recycling, and other state resources.

- ADEQ Newsletter **http://www2.ev.state.az.us/comm/library/news.html**
  Arizona Department of Environmental Quality's monthly online newsletter covering rulemaking activities for the current month.

- Arizona Environmental Strategic Alliance (AESA) An Alliance of business and government organizations which model environmental performance, stewardship and leadership.

- Occupational Safety and Health Administration (OSHA) **http://www.osha.gov**
  OSHA regulatory and technical guidance including Title 29 CFR

- Emergency Planning **http://www.dem.state.az.us/azserc/**
  Arizona Emergency Response Commission

- Material Safety Data Sheets **http://www.nwfsc.noaa.gov/msds.html**
  Materials and safety data sheets databases. This site provides access to a number of searchable databases containing MSDS sheets.

- National Institute of Environmental Health Services **http://www.niehs.nih.gov**
  Environmental Health Information.

- EPA Chemical Fact Sheets **http://www.epa.gov/opptintr/chemfact**
  Some EPA chemical fact sheets.

- Material Safety Data Sheets and Links to Other MSDS sites **http://hazard.com**
  MSDS database plus links to many others plus workplace safety information.

- EMS/ISO 14001 Municipal Pilot Baseline Protocols
  http://sunsite.unc.edu/villani/isoprojects.htm
  (Select Data Collection Protocols to download a word document) Guide to the collection of standardized and comparable data from a wide variety of pilot project facilities.

- EPA CEPPO Website **http://www.epa.gov/swercepp/acc-pre.html**
  Federal EPA site for chemical accident emergency information and resources to understand the new Risk Management Plan requirements.

Document Control No.EM01204R01	Original Date 10/12/98	Date last revised 2/24/00	Revised by: Larry Person
Document Titled: Other EMS Web Sites		When Printed Approximately 2 Pages	

Environmental Policy

Scottsdale's Vision Statement includes the expectation that "….our employees will be recognized as environmentally sensitive."

The City of Scottsdale is committed to continuously improve citywide environmental management practices and to become a model of environmental performance. The City empowers each individual employee to proactively promote environmental leadership through the following four environmental stewardship principles:

Conservation - to actively explore, create, and communicate new ways to prevent pollution and to preserve natural resources.
Co-operation - to build partnerships, inside and outside the organization, to sustain and enhance our environment.
Environmental Compliance and Risk Reduction - to ensure that technologies, facilities, processes and operating procedures meet or exceed environmental, health, and safety requirements and other requirements that the City has committed to meet.
Restoration - to promptly and responsibly correct conditions which hinder sustainable environments.

In order to assist in the promotion of these stewardship principles, the city will maintain an environmental management system, including environmental objectives and targets consistent with this policy that are measurable, meaningful, and understandable. This policy, including progress toward the achievement of the objectives and targets, will be communicated to our employees and to our citizens and other stakeholders.
A healthy and sustainable environment is important to our citizens, our economy, and our future. The City of Scottsdale will strive to be a model of environmental performance.

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Document Titled: Environmental Policy			When Printed Approximately 1 Pages

Aspect System Procedure

Environmental Aspects will be identified in each department using the following procedures:

1. The Environmental Planning & Design Office will develop and make available on the EcoSystem Web site, standardized procedural policies for all City departments to follow.

2. The Environmental Planning & Design Office will use a standardized matrix to "take the first cut" at identifying aspects for at least one work division within each City department.

3. The Environmental Planning & Design Office will meet with Steering Committee Team members from each City department and provide training on aspect identification and the use of standardized forms and procedures to use to identify departmental environmental aspects. Necessary additional resources will be made available on the EcoSystem Web site.

4. Together the Environmental Planning & Design Office and Steering Committee Team members from individual City departments will be called that department's EMS Project Steering Committee Team.

5. The EMS Project Steering Committee Team will meet and agree on a representative set of aspects for that City department. A secondary goal of this/these meeting(s) will be to adequately train departmental Steering Committee Team members to be trainers for their department and possibly other City departments.

6. The department EMS Steering Committee Team members will then be responsible for training others in their respective departmental divisions to complete the process of identifying all environmental aspects for their City department.

7. The Environmental Planning & Design Office will continue to serve as a resource for this departmental process.

8. The Environmental Planning & Design Office will meet with departmental EMS Project Steering Committee Team members once the process of aspect identification has been completed for that department, review the results, suggest possible revisions and agree on the final product.

9. Once this aspect identification process has been completed, the department EMS Steering Committee Team will assign someone to prepare a final aspect document, assign it a control number, log in into the electronic EMS documentation system, and enter it onto the EMS server.

10. If changes in aspect identification are deemed necessary by the EMS Project Management Team (i.e. the Environmental Planning & Design Office), during the Pilot program, or by the annual EMS audit process, the above procedures will be followed. Once a revised, approved aspects document is produced from these procedures, someone will be assigned to replace the original aspects document with the revised document on the electronic EMS documentation system on the EMS server.

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Document Titled: Aspects-System Procedure			When Printed Approximately 1 Pages

Environmental Impact System Procedure

Environmental Impacts will be identified in each department using the following procedures:

1. The Environmental Planning & Design Office will develop and make available on the EcoSystem Web site, standardized procedural policies for all City departments to follow.

2. The Environmental Planning & Design Office will use a standardized matrix to "take the first cut" at identifying impacts for at least one work division within each City department.

3. The Environmental Planning & Design Office will meet with Steering Committee Team members from each City department and provide training on impact identification and the use of standardized forms and procedures to use to identify departmental environmental impacts. Necessary additional resources will be made available on the EcoSystem Web site.

4. Together the Environmental Planning & Design Office and Steering Committee Team members from individual City departments will be called that department's EMS Project Steering Committee Team.

5. The EMS Project Steering Committee Team will meet and agree on a representative set of impacts for that City department. A secondary goal of this/these meeting(s) will be to adequately train departmental Steering Committee Team members to be trainers for their department and possibly other City departments.

6. The department EMS Steering Committee Team members will then be responsible for training others in their respective departmental divisions to complete the process of identifying all environmental impacts for their City department.

7. The Environmental Planning & Design Office will continue to serve as a resource for this departmental process.

8. The Environmental Planning & Design Office will meet with departmental EMS Project Steering Committee Team members once the process of impact identification has been completed for that department, review the results, suggest possible revisions and agree on the final product.

9. Once this impact identification process has been completed, the department EMS Steering Committee Team will assign someone to prepare a final impact document, assign it a control number, log in into the electronic EMS documentation system, and enter it onto the EMS server.

10. If changes in impact identification are deemed necessary by the EMS Project Management Team (i.e. the Environmental Planning & Design Office), during the Pilot program, or by the annual EMS audit process, the above procedures will be followed. Once a revised, approved impacts document is produced from these procedures, someone will be assigned to replace the original impacts document with the revised document on the electronic EMS documentation system on the EMS server.

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Document Titled: Impacts- System Procedures			When Printed Approximately 1 Pages

Criteria for Significance System Procedure

The Criteria to Use for Determining Significance of Environmental Impacts Will be Determined in Each Department Using the Following Procedures:

1. The Environmental Planning & Design Office will develop and make available on the EcoSystem Web site, standardized procedural policies for all City departments to follow.

2. The Environmental Planning & Design Office will develop a standardized matrix for rating the significance of environmental impacts. The matrix will be called the "Aspects and Impacts Scoring Criteria Matrix". It shall have a Part, A which will be used to identify aspects and their impact, and a Part B, which will use a numeric system of ranking the significance of those impacts. The key for using the numeric system of ranking will be included on the matrix.

3. The Environmental Planning & Design Office will meet with Steering Committee Team members from each City department and provide training on criteria for significance and the use of the standardized matrix. Necessary additional resources will be made available on the EcoSystem Web site.

4. Together the Environmental Planning & Design Office and Steering Committee Team members from individual City departments will be called that department's EMS Project Steering Committee Team.

5. The EMS Project Steering Committee Team will meet and agree on a representative set of significant impacts for that City department. A secondary goal of this/these meeting(s) will be to adequately train departmental Steering Committee Team members to be trainers for their department and possibly other City departments.

6. The department EMS Steering Committee Team members will then be responsible for training others in their respective departmental divisions to complete the process of assessing all environmental impacts for significance to their City department.

7. The Environmental Planning & Design Office will continue to serve as a resource for this departmental process.

8. The Environmental Planning & Design Office will meet with departmental EMS Project Steering Committee Team members once the process of impact significance has been completed for that department, review the results, suggest possible revisions and agree on the final product.

9. Once this impact significance rating process has been completed, the department EMS Steering Committee Team will assign someone to prepare a final significant impact document, assign it a control number, log it into the electronic EMS documentation system, and enter it onto the EMS server.

City of Scottsdale

Environmental Management System (Ecosystem) - Process Template — **SAMPLE**

Department: Citywide

Direct Step
Indirect Step
End of Process

Track I — Legal Requirements
Track II — Pollution Prevention
Automatic Significant Environmental
Continuous Improvement Process

#	Activity, Process, Service	Legal Requirement Yes	Legal Requirement No	Environmental Aspects ISO Standard 4.3.1	Environmental Impacts ISO Standard 4.3.1	Significant Aspect? [1] Yes	Significant Aspect? [1] No	How Opportunities can be measured [2]	Priority [3] High	Priority [3] Low	Objective ISO Standard 4.3.3	Target ISO Standard 4.3.3	EMP Strategies [4] ISO Standard 4.3.4	Environmental Conditioning Result(s)	Projected Costs
1	**Operate City Vehicles Gasoline, Diesel**		X	***Air emission *Spills**	***Air quality *Water quality**	X		**CNG vs Fossel fuel cost comparison** **Air emission reduction is equal to $$$ per/lb.** **250 vehicles traveling 40 miles per/day = 10,000 miles traveled per/day.** **First fuel usage vs fossel fuels.**	X		**All City vehicles to be powered by an alternative fuel.** **Zero idling tolerance** **Include "First Fuel" policy within Employee Review process**	**Annually Increase the total # of alternative fueled vehicles by 5%** **Annually reduce the amount of vehicles idling over 2 minutes by 5%.** **Initiate change within review documentation by July '99**	**Increase tele-conferencing** **Monitor CNG usage and reflect employee participation.** **Communicate to staff methods to reduce air emissions and spillage.**	**Improved air quality** **Fossil fuel reduction** **Increased individual stewardship practices** **Spillage reduction** **Reduced liability for spills** **Reduced non-point source pollution**	**$$**
2	**Operate Personal vehicles: Gasoline, Diesel**		X	***Air emission *Spills**	***Air quality *Water quality**	X		**1200 vehilcles traveling 12 miles per/day = 14,400 miles traveled per/day.**	X		**Encourage employees to carpool or use other means of transportation**	**Annually Increase *Trip Reduction* program participation by 5%.**	**Offer cash incentives to participate** **Reduce mileage reimbursement** **Support telecommuting**	**Improved air quality** **Fossil fuel reduction** **Increased individual stewardship practices**	**$**

1) Identifies a significant environmental aspect based upon the "*scoring criteria for environmental aspects/impacts*" sheet. 2) Describes opportunities based on potential cost savings, avoidance's, and/or revenues generated. It may also include opportunities to increased environmental health and safety practices or operational benefits. 3) The EMP shall include information about the following ISO standards: 4.4.1, 4.4.2, 4.4.3, 4.4.4, 4.4.5, 4.4.6, 4.4.7, 4.5.1, 4.5.2, 4.5.3, 4.5.4, 4.5.6.

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Document Title: Aspect/Impact/Significance Tool | When Printed approximately 2 Pages

Procedure to Identify Legal and Other Requirements

The City is using individual departments to identify the legal requirements and other environmental obligations that must be met and addressed by the EMS. Initial development of the list includes completion of the attached matrix by each work area, and an interview by a member of the EcoSystem Steering Committee.

The EcoSystem Steering Committee is using a series of tools to assist in the completion of the matrix. For Compliance Issues those tools will include:

- Electronic library of Environmental Regulations
- Currently using BNA
- Legal Staff review of department operations
- Legal staff is assigned to the various departments, and individual legal staff are familiar with many of the regulations that their staff are required to meet
- Interviews with middle management staff
- Review with Asset Management Officer to identify City property which may be leased or used for purposes not directly related to city operations for which we may have an environmental obligation
- Review of City Clerk documents
- City Council agendas identifying contracts or other commitments

The EcoSystem Steering Committee will use the following tools for identifying "other legal requirements" (including such issues as participation in the EPA Green Lights program, Energy Star program, other city commitments, and "beyond" compliance issues) under which the city may have an impact:

- Review of Annual Budget document, Department Workplans, and interview department staff
- Interviews with middle management staff
- Review of City Clerk documents

Procedure for Ongoing Tracking and Monitoring Legal and Other Requirements

The legal requirements identified in the matrix will be maintained as files on the Intranet site for the city. A specific EMS Intranet Page is being designed for the EcoSystem (EMS) and will have a section for managing summaries of the legal requirements, organized by Department, as identified on the matrix.

This filing system will be supplemented by new rules and regulations affecting the city that will be culled from the Federal Register, Compliance tracking services, or other consulting services, one of which will be selected to provide this service as the development of the EMS directs as being the most appropriate.

- The Environmental Planning & Design Office will be responsible for maintaining the EcoSystem Page, and for maintaining the information placed on the page. EMO will also be responsible for receiving documentation on new rules and regulations as they are promulgated and distributing them to the appropriate department for implementation.

- Notification of new regulations sent to departments will include an electronic cover sheet that advises the department of the intent and scope of the requirement and its impact on the department.

- The existing Environmental Update newsletter will be used to distribute information to employees on new and existing legal requirements. Copies of these newsletters will be maintained on the Intranet Page.

- A resource page will be developed to identify contacts for technical information that departments may need to implement legal requirements

- USEPA, Consultant resources, Trade or Industry Associations

- Auditing, Monitoring, and Compliance Assistance will be performed by Environmental Management staff.

- Annual reporting to departments will be performed indicating:

    - a) Summaries of new requirements
    - b) Training needs of new requirements
    - c) Compliance assistance information

Completion Date for Tracking Systems: Staff is considering a consultant contract to perform this function, as we believe that it will be highly sophisticated and is a core element of the success of the EMS. A software manufacturer that has developed this package is making a presentation to staff on Monday, April 13. We anticipate that this will be an ongoing part of EMS development and other than developing assignments and staff responsibilities, the Tracking System will not be completed in the early part of the pilot.

City of Scottsdale
Department/Division Regulatory Inventory

NUMBER	STATUTE, LAW OR REGULATION	Organization Wide	Community Services Admin.	Maintenance and Recreation	Contracts	Human Services	Libraries	Financial Services Admin.	Administration/Office	Graphics/Mailroom	Purchasing	Risk Management	Meter Reading	Stores/Warehouse	General Government Admin.	Westworld	City Cable 11	Legal	I.S. Admin.	O.E. Admin.	Municipal Services Admin.	Capitol Project Management	Field Services	Fleet	Solid Waste Management	Community Development Admin.	Inspections/Survey/Enforcement	Project Review	Community Planning Admin.	Environmental Management Office	UST's	Economic Development	Preservation	Redevelopment and U.D.	Public Safety Admin.	Police Lab/Property Room/Incinerator	Emergency Services Management	Rural Metro	Training Facility	Transportation Admin.	Airport Admin.	Airport Operations	Traffic Engineering	Water Resources Admin.	Water Quality	Pretreatment	GWTF	Planet Ranch	Production & Distribution	Treatment
1	Clean Air Act (CAA)																																																
2	Clean Water Act (CWA)																																																
3	Safe Drinking Water Act (SDWA)																																																
4	Toxic Substances Control Act (TSCA)																																																
5	National Environmental Policiy Act (NEPA)																																																
6	Resource Conservation and Recovery Act (RCRA)																																																
7	Comp. Env. Response, Comp., Liab. Act (CERCLA)																																																
8	Radon Gas and Indoor Quality Research Act																																																
9	Emer. Planning/Community Rt-to-Know Act (EPCRA)																																																
10	Pollution Prevention Act of 1990																																																
11	Energy Policy Act fo 1992																																																
12	Fed. Insecticide, Fungicide, Rodenticide Act (FIFRA)																																																
13	Noise Control Act																																																
14	Occupational Safety and Health Act																																																
15	Hazardous Material Transportation Act																																																
16	Superfund Amendment and Reauthorization Act																																																
17	Endangered Species																																																
18	NPDES																																																
	STATE LAWS																																																
19	Air Quality																																																
20	UST																																																
21	Waste Tire																																																
22	Used Batteries																																																
23	Medical Sharps																																																
24	Ground Water																																																
25	Environmental Nuisances																																																
26	Remediation Standards																																																
27	Water Quality																																																
28	APP																																																
29	Pestocodes																																																
30	Dry Wells																																															1	
31	Water Systems																																																

32	Wastewater
33	Pretreatment
34	Air Quality
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Rules & Regulations Index

- CPI Electronic Publishing **http://falcon.citation.com/citmenu1.htm** (subscription service)
  If you don't subscribe use this URL **http://citation.com/**
  (This is a subscription service available to City of Scottsdale employees. A user name and password are required to access the site. City employees should contact the Environmental Management Office to get set up as a valid user.) Easiest access to all Federal, State, & County environmental regulations, current Federal Register information, executive summaries, daily and weekly newsletters, and many other environmental resources and documents.

- EPA Laws & Regulations **http://www.epa.gov/epahome/rules.html**
  Federal laws, regulations & current environmental legislation

- Federal Register Online via GPO Access
  http://www.gpo.gov/su_docs/aces/aces140.html
  Federal Registers since 1995

- Arizona Revised Statutes (A.R.S.) **http://www.azleg.state.az.us/**
  All State of Arizona regulations including A.R.S. 49, the environmental regulations

- Westlaw (online legal subscription service) **http://www.westgroup.com**
  General legal information, not specifically environmental.

Document Control No. EP&D 05003	Original Date04/27/99	Date last revised 9/14/99	Revised by: Larry Person
Document Titled: Environmental Regulations Guide		When Printed Approximately	Pages

Environmental Management Program
City Wide - Use of Copiers/Printers

1999 Objective: Develop an ongoing educational program designed to change work habits resulting in less paper wasted citywide

1999 Target: Educate staff to change work habits in 4 specific ways to reduce wasted paper by 25%

1. Promote double-sided paper copying as default setting on copiers
2. Promote half-passed paper usage options
3. Promote electronic review of draft documents
4. Reduce "Junk Faxes" received

Title: Purchasing Operations Manager **Phone number:** (480) 312-7622

Person Currently in Position: Ron Tatum **Email:** mailto:rtatum@ScottsdaleAZ.gov

Purpose: Reduce amount of paper used in copiers, printers and FAX machines organization wide.

Schedule: Annual Education Program targets 4-6 specific ways to change work habits resulting in reduced waste of paper.

Continual Evaluation: Annually review amount of paper purchased by the City organization.

Who to report to (written, forms): Annual reports directed to the General Manager of Financial Services.

Emergency Procedures: Not applicable

Progress report for the year: Baseline year data for 1999.

Budget: EMO education budget other resources: Purchasing directs contracts for copiers to specify default setting on copiers as "double sided copying" as an option.

Personnel: _____

_____

Training: _____

_____

Other Resources: _____

_____

Document Control No. 0W06001N00	Original Date 04/27/99	Date last revised	Revised by: Larry Person
Document Titled: Copiers & Printers			When Printed Approximately 1 Pages

Environmental Management Program
Financial Services - Warehouse

1999 Objective: Minimize the number of batteries generated in the department from going to the landfill.

1999 Target: Increase by 20% the amount of batteries our department recycles.
Reduce paper use related to printers and copiers by 10% over the prior year.

Title: Risk Services Manager **Phone number:** (602) 312-5022

Person Currently in Position: Paul McKee **email:** mailto:pmckee@ScottsdaleAZ.gov

Purpose: To implement procedures to proactively minimize batteries put into the regular solid waste stream.

Schedule: Ongoing, quarterly check-ups with individual divisions.

Continual Evaluation: Annual review of number of batteries delivered to our battery recycling vendor.

Who to report to (written, forms): Reports will be written forms directed to the General Manager of Financial Services.

Emergency Procedures: Not Applicable

Progress report for the year: Program began January 1, 1999

Budget: The only anticipated budget impact is related to marketing materials and staff training time and monitoring which should be minimal.

Personnel: It requires one person to monitor battery counts.

Training: With the assistance of EMO staff, all Financial Services employees will be educated about the program.

Other Resources: Staff time of Risk Services Manager to oversee the program.

Document Control No. FS06001N00	Original Date01/11/99	Date last revised	Revised by: Larry Person
Document Titled: Battery Recycling			When Printed Approximately 1 Page

Developing an Environmental Management Program (EMP) for your Significant Aspects

The following steps should help you develop an EMP for your facility that will help you accomplish the environmental objectives and targets you have set for your organization and realize your policy goals. As you begin to develop your EMSs, you may want to ask yourself some of the following questions:

- What will you ask your employees to do to achieve your organization's environmental objectives?
- How will you prepare your employees to carry out their responsibilities?
- What are you currently doing that works well? What do you want to amend, change, delete or add?
- How will you break the program down into manageable tasks or phases?
- What will the schedule look like?
- How will you measure progress?
- Who will be responsible for what tasks and activities?
- What resources will you require?
- What documents and records will you maintain?

The answers to these questions will help you shape your organization's action plan to accomplish its objectives and targets. ISO 14001 calls this action plan an Environmental Management Program (Section 4.4 of the standard). As you begin this next phase of operation, top management involvement will be quite helpful to reemphasize that an environmental management system is a strong priority for your organization.

Step 1: Objectives and Targets
First review your objectives and targets. What do you want to accomplish with your environmental management system? Do your objectives and targets reflect your policy commitments, your significant environmental aspects and your legal and other requirements? Can you break down the goals into sequenced tasks that can be delegated, monitored, and managed? If the answer is yes, you are ready to develop environmental management programs (action plans) to accomplish your goals.

Step 2: Significant Aspects
Now determine and clearly identify which significant aspects are associated with your objectives and targets. Where do these significant aspects occur in your organization? Using your workflow process diagrams, identify the functional units and operations and activities associated with each of these significant aspects.

Step 3: Operational Control
Review existing operating procedures and work instructions with the people who actually do the work. Verify that these procedures are really what is being done on the "shop floor". With your core team, review amend, supplement the procedures as necessary to ensure that the organization has the tight operational control you want it to have over your significant aspects and to accomplish tasks leading to realization of your objectives and targets (operational control 4.4.6). Be sure to enter any new or changed procedures and/or work instructions into your document control system.

Step 4: Roles and Responsibilities
Next, determine who has responsibility for operations and activities associated with significant aspects? Are there additional responsibilities that need to be delegated to achieve your objectives and targets. Use job titles, not names, to document employee roles, responsibilities and authorities associated with significant aspects and objectives and targets (structure and responsibility 4.4.1). Enter this information into your EMS documentation format. There are several examples and organizers in your training binders and in the NSF guide and also in the CD-ROM that can get you started on a format for documenting this information.

Step 5: Documentation
Collect any existing documentation that is associated with these operations, for example

- operational procedures
- work instructions,
- emergency response plans,
- maintenance manuals, schedules, diagrams
- permits
- employee certifications

Step 6: Document Control
At this point, you are probably revising existing job descriptions and/or work instructions or creating new ones. You are also gathering up operational manuals, maintenance manuals, copies of permits, regulations, contracts, org charts, waste manifests, etc. Steps 3, 4, 5, and 6 generate a lot of paper that's dispersed throughout your organization. Use your documentation plan (EMS documentation 4.4.4) and your document control system (document control 4.4.5) to manage these documents. There are several good examples of EMS documentation systems in your training binders, the CD-ROM, and the NSF guide. Many organizations use an Environmental Manual as a *roadmap* to their EMS documentation. We've distributed several Environmental Manual samples at the Scottsdale training session (see also CD-ROM, NSF guide). Take a breath here. Your documentation plan is a work in progress for a while. Jump in and get started with some organizational system you think might work efficiently to have the papers you need available where you need them. Revise as you gain more experience with your management system. The most important initial step is to develop a format that you like that is consistent with what your organization already uses, and that satisfies the requirements of document control (4.4.5). The rest will fall into place within 3 months.

Step 7: Training
Now determine who needs training. Remember that *all* employees in your facility need to be familiar with your environmental policy and understand the environmental goals of your organization. Everyone needs to know their roles and responsibilities in helping the organization achieve its policy goals and its objectives and targets. They'll also need to understand the consequences of not following these policies. Additionally, *some employees* whose work is most closely associated with significant environmental aspects may need additional training to prevent or mitigate any adverse environmental impacts. You are asked to verify the competence of these employees based on training, education, or experience (training 4.4.2). It's also a requirement of ISO 14001 that you document your training records, in other words *verify* that employees have been trained as you deem necessary. There are several examples and organizers in your training binders and in the NSF guide and also in the CD-ROM that can get you started on a format for your training records.

Step 8: Internal Communication
Within your organization, who needs to talk to whom about your EMS, your significant aspects, achieving your objectives and targets? How does your organization manage this communication between departments, and up and down the organizational hierarchy. If communication about your environmental issues needs improvement, now is the time to plan for these new communication patterns and to ensure that they are taking place (communication 4.4.3). Top management involvement may be extremely helpful here to make communication a priority.

Step 9: External Communication
What will your organization do with *external* communication about significant aspects? The standard requires that you discuss your options and record your decision about how you will handle external communication (communication 4.4.3). Who is responsible for receiving, recording, responding to external communication in the manner you have decided. Will you maintain records about this?

Step 10: Records

Records verify that you are actually *implementing* your EMS. Review each step above and think about what *records* (records 4.5.3) you will be generating as evidence that your operational procedures are being carried out. Who will maintain these records? Where will they be stored? Many organizations include this information right in the procedure. Update roles and responsibilities documentation with this information and provide training as necessary. Records are an important part of your document control plan.

Step 11: Emergency Preparedness and Response

Finally, review the organization's existing emergency response plans and procedures (emergency preparedness and response, 4.4.7). Have you tested your emergency response where practicable? Do they work as you want them to? Do any of your procedures need to be revised or augmented to prevent or mitigate any environmental impacts. Can you verify that your employees know what to do if an emergency situation arises?

Each of these eleven steps can be revisited, refined, improved through your continual improvement processes. Collect feedback from your employees, track that your management goals are being met, and use the audit process to verify that your Environmental Management Program is working the way you want it to. Remember, an EMP, like the environmental management system, is meant to be a flexible and dynamic. Neither is carved in stone for posterity. If it's not working, make it better.

Document Control No. EMO6801N00	Original Date04/27/99	Date last revised	Revised by: Larry Person
Document Titled: 11 Steps to an EMP			When Printed Approximately 3 Pages

Structure and Responsibility

Audit Criteria:

1. Have defined roles, responsibilities and authorities been established and communicated to the appropriate employees?
2. Have sufficient financial, technical and personnel resources been made available to implement the EMS?
3. Has a management representative been appointed by senior management to oversee the EMS and to report on its performance and progress?
4. Are roles, responsibilities and authorities appropriately specified within the environmental management programs?

Document Control No. EMO6901N00	Original Date04/27/99	Date last revised	Revised by: Larry Person
Document Titled: Structure & Responsibility		When Printed Approximately 1 Pages	

EMS Teams

EcoSystem Teams - Approach

Three teams comprised of City staff, private industry and regulatory agencies, both professional and technical, were established to help develop, implement and oversee the building of a comprehensive Environmental Management System (EcoSystem) for the City of Scottsdale. These teams will support the project managers who are responsible for orchestrating this project. Provided below are lists of these selected individuals:

- Chairperson: David Ellison, Assistant City Manager
- EMS Administrator: Larry Person, Environmental Office
- EMS Training Coordinator: Dennis Enriquez, Environmental Office
- EMS OSHA Advisor: Paul McKee, Risk Management
- EMS Communications Coordinators: Sarah Ferrara, CAPA & Rick Forgus, CAPA

Oversight/Technical Support - Team I
The 11 member Oversight/Technical Support Team is built with representatives from private industry who have experience in ISO 14000 certifications. This team is responsible for providing technical support to the Core Team and Steering Committee. As part of the stakeholder process, the City's citizen advisory board, the Environmental Quality Advisory Board (EQAB) members also provide input. Oversight/Support Team members will meet annually to review the direction of the EMS progress.

- Motorola GSTS - Jeff Homer
- ADEQ - Greg Workman
- Allied Signal - Tao Wu
- Consultant - Alex Dely
- SRP - Ethal DeMar
- Yuma Proving Grounds - Chuck Botdorf
- Motorola FPDD - Dan Steele
- IBM - Barb Ricca

Core - Team II
The 9 member Core Team is comprised of City management personnel. The core team is responsible for providing support to staff from their respective areas to carry out the EcoSystem mission. Core team members meet annually.

- Financial Services - Jim Jenkins
- Human Resources - Neal Shearer
- City Attorneys Office - Steve Bennett
- CAPA - Pat Dodds
- Community Services - Bill Exham
- Municipal Services - Al Dreska
- Water Resources - David Mansfield
- Emergency Services - Marc Eisen

Steering Committee - Team III

The 42 member Steering Committee comprised of City middle management staff, will be responsible for identifying environmental impacts within their respective areas and provide methods to control and maintain. Core Team staff will interact with the Steering Committee as facilitators in their meetings. Steering Committee members will meet quarterly.

Environmental Office Staff	Transportation
Sandy Spain	Michelle Korf
Nicole Reuben	Airport - Kevin Shirer
Financial Services	**Community Development**
Warehouse - Rocky Button & Phil Murphy	Inspection Services - John Courney & Joe Morris & Jeff Fisher
Graphics - Ric Brown & Ray Novack	Quality Compliance - Wendy Hardy
Water Resources	**Emergency Services**
Quality/Engineering - Scott Anderson & Maria Mahar	David Jones
Operations - Bob Berlese, Dave Petty, Art Nunez, Jim Clune, & Bill Vernon	
Municipal Services	**Parks, Recreation & Maintenance**
Solid Waste Management - Rick Pence	Debbie Baird
Fleet - Guy Casazza	Contracts - Bill Sturgill
CPM - Don Gerkin & Annette Grove	Recreation - Yvonne Massman
Field Services - Norm Akin	Facilities - Lyle Ferger & Jerry Ferrara
	Area Coordinators - Marc Ranney
IS/Advanced Technology	**HRS**
Jay Wilson & Cindy Sheldon	Joe Kisler
Preservation	**Library**
Don Meserve	Bill Pillow & Skye Winter
Legal	**Police**
Janis Villalpando & Paul Norman	Gary White, Chris McDowell, Steve Garrett

Document Control No. EM06900N00	Original Date10/16/97	Date last revised 10/21/98	Revised by: Larry Person
Document Titled: EMS Teams			When Printed Approximately 2 Pages

Training, Awareness and Competence

1. Audit Criteria:

2. Has the organization identified and evaluated training needs for all personnel and contractors, where appropriate, whose functions may create a significant impact on the environment?

3. Has the organization identified training needs for providing general awareness to all employees and managers at each relevant function and level?

4. Does training emphasize the importance of compliance with all applicable laws and regulations, conformance with the organization's environmental policy and with the requirements of the EMS?

5. Does training emphasize the significant environmental impacts, actual or potential, of work activities?

6. Does training emphasize the environmental benefits of improved personal performance relative to environmental aspects?

7. Does training emphasize the roles and responsibilities of employees and on-site contractors in achieving conformity with the environmental policy and procedures including emergency preparedness and response requirements?

8. Does training emphasize the potential consequences of departure from specified operating procedures?

9. Are all employees whose work can cause significant environmental impacts competent by training, experience and education?

10. Has a determination of competence for such employees been made and recorded?

11. Does the employee know that he is deemed to be so competent?

Document Control No. EMO7001N00	Original Date 04/27/99	Date last revised	Revised by: Larry Person
Document Titled: Training Audit		When Printed Approximately 1 Pages	

EMS "ECOSYSTEM" COMMUNICATIONS ACTION PLAN

(Team: Randy Grant, Larry Person, Dennis Enriquez, Garen McClure, Rick Forgus, Sandy Spain and Sarah Ferrara)

ACTION ITEM	RESPONSIBLE TEAM MEMBER	STATUS	ANTICIPATED COMPLETION DATE
A.) MARKETING COMMUNICATION			
1.) Slogan Development	EMO team	Done	10/1
2.) Logo Development	Rick Forgus EMO team	Done Working on	10/1 11/1
3.) Giveaways/Staff Trinkets	Sandy Spain/Garen McClure Rick Forgus/Garen McClure	Working on Working on	11/15 11/15
4.) EMS Team Shirts	EMO team/Sandy Spain/Rick Forgus	Online 100%	10/1
5.) EMS Posters and Banners		100% 50% 25% 50%	
6.) Development of Online Notebook: • Web Design • Welcome • About • Employee-Led • In-Process • Resources • Links	Sarah Ferrara/ All Team	100% Working on	11/24
7.) Communications Kickoff Event: • Notebooks Online/Hardcopy for Core Team • Assistant City Manager/E-Team presentation • Orient Core Team • Oversight/Technical Support Team Briefing • Train Steering Team • Develop Press Kit Briefing • Advertise and Promote Event			

B. INTERNAL COMMUNICATION			
1.) HotLine from Dick Bowers/ David Ellison	Sarah Ferrara	To be developed	11/23
2.) Routine blurbs in CityLine with links to EcoSystem Internet site	Sarah Ferrara	Continuous	10/10
3.) Videoline Segments	Sarah Ferrara/Rick Forgus/Dennis Grzlack	To be developed	11/19 10/10
4.) Environmental Newsletters	Sandy Spain/Garen McClure	Monthly	10/1
5.)EcoSystem Web Site	Sandy Spain/Rick Forgus	Done	10/9
6.)EcoSystem Contests	Garen McClure	Done	12/24
• Treasure Hunts • Ask Eco • Preflights	EMO Team	In-Process Working on To be developed	
7.)Staff Meeting Presentations	Sarah Ferrara/All Teams	Begin 11/30	10/00
8.)Celebration Events		To be developed	
• EPA Pilot Completion • States Program Pilot Completion • ISO 14000 Registration			

C. EXTERNAL COMMUNICATION			
1.) Press Kit	Sarah Ferrara/Mike Phillips	To be developed	11/17
• Fact Sheet • Press Releases	EMO Team Sandy Spain/Rick Forgus/EMO Team	Done Continuously Updated	9/25 10/1
2.) Letters to advisory/mentors			
3.) Internet site			

Treasure Hunt Contest

Eco Gecko

Hi! I am EcoGecko and the following are the rules to my Treasure Hunt Contest. It is easy to win prizes, it does not take much time, hopefully you will have some fun and learn something about environmental stewardship and the City's environmental performance. Each week I will be on a different page within the EcoSystem web site. If you can find me, click on me and send me an email. In that email provide evidence that you found me on the correct page. Once I have received your email, your name will be placed in pool for a weekly drawing. If your name is drawn then a prize will be awarded to you. Each week the names will be added, your name will not be removed unless you win. Remember to try to find me at my different location each week. Your chances of winning are good. Good Luck!

Document Control No. EM07502N00	OriginalDate10/12/98	Date last revised	Revised by: Larry Person
Document Titled: Treasure Hunt Contest		When Printed Approximately 1	Pages

EMS Documentation

Audit Criteria:

1. Are the core elements of the EMS documented, including all of the required procedures?
2. Does the documentation of the core elements of the EMS describe their interaction?
3. Does documentation of the core elements of the EMS provide direction to related documentation?

Document Control No. EMO8001N00	Original Date04/27/99	Date last revised	Revised by: Larry Person
Document Titled: EMS Documentation Audit			When Printed Approximately 1 Page

Document Control Log

Document Control Number EM03001	Original Date: 10-12-98	Date last revised	Revised by:Larry Person
Document Titled: Criteria for Determining Significance		When Printed Approximately 1 Page(s)	

Document Control Number EM03001	Original Date: 10-12-98	Date last revised	Revised by:Larry Person
Document Titled: Criteria for Determining Significance		When Printed Approximately 1 Page(s)	

Document Control Number EM03001	Original Date: 10-12-98	Date last revised	Revised by:Larry Person
Document Titled: Criteria for Determining Significance		When Printed Approximately 1 Page(s)	

Document Control Number EM03001	Original Date: 10-12-98	Date last revised	Revised by:Larry Person
Document Titled: Criteria for Determining Significance		When Printed Approximately 1 Page(s)	

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Document Titled: Criteria for Determining Significance		When Printed Approximately 1 Page(s)	

Document Control Number EM03001	Original Date: 10-12-98	Date last revised	Revised by:Larry Person
Document Titled: Criteria for Determining Significance		When Printed Approximately 1 Page(s)	

Document Control Number EM03001	Original Date: 10-12-98	Date last revised	Revised by:Larry Person
Document Titled: Criteria for Determining Significance		When Printed Approximately 1 Page(s)	

Document Control No.EM08102N00	Original Date10/12/98	Date last revised	Revised by: Larry Person
Document Titled:Document Control Log			When Printed Approximately 2 Pages

Control Document Standardized Footer Elements

Document Control No. WR04000R01	Original Date10/12/98	Date last revised: 3/1/00	Revised by: Larry Person
Document Titled: Criteria for Determining Sig. Document			When Printed Approximately 7 Pages

Document Control #: WR04000R01

The document control number is the number used to identify the document. These numbers are a part of a system of organizing all the documents used and created as part of the City of Scottsdale's Environmental Management System In addition to organization, this system allows one to track documents as well. The municipality is a complex organization, one in which documents are updated on a daily basis. This systems allows employees to updated documents, while at the same time, observe what information existed before the update. The use of this number allows the documents to be tracked through the regular changes and progressions made throughout the course of the documents use.

WR04000R01

WR is the notation assigned to the Water Resources department. Different notations have been created that correspond to each department within the municipality. Typically the notation is the first letter of each word in the departments title. Some departments do not have more than one word in their title, so adaptations have been made.

The **4000** represents the process outlined for criteria for determining significance. These criteria are outlined in the Document Control System document (EM01001R02). The numbers have been assigned to aid in the document control and tracking process. It was determined that the use of numbers would be a more manageable approach to this process. A complete list of the departments and their corresponding numbers is available in the Document Control System document.

The **R** indicates that the document has been revised. **N** indicates the document (EM01001R02) is in its original form.

The **Revision #** indicates the number of times the document has been revised. This allows employees to check what revisions have been made in the past. Original revisions and previous revisions are archived to show users what the document looked like in its original form. This is also useful when records need to be checked for the purpose of auditing or double-checking.

The **Original Date** is the date the document became an official element of the EMS.

The **Date Last Revised** indicates to the user what day the document "officially" became part of the EMS.

Revised by indicates who authored or approved the revision.

The **Document Title** provides an alternative method for looking up the document needed. If one knows the document title as opposed to the document control number they would still be able to locate the document.

When Printed Approximately ------- Pages gives the user an indication of the size of the document when printed out in "hard copy", as opposed to the pageless electronic control document on the computer screen.

The **Document Date** is the date the document was drafted and accepted as the control document. This allows those using the document to know what day the document originated.

Document Control No.EM08005R01	Original Date10/12/98	Date last revised3/1/00	Revised by: Larry Person
Document Titled: Critical Document Example			When Printed Approximately 2 Pages

Document Control System
Standardized Footer

This is an example of the footer attached to all EMS "control documents". "Control Documents" are the "official" documents detailing a portion of the City's Environmental Management System. All "control documents" are electronic documents on the City's EcoSystem Intranet web site. Once a document is printed out in "hard copy" it is no longer the official control document of the EMS.

Document Control No.	Original Date	Date Llast Rrevised	Revised by:
Document Titled:			Approximate No. of Printed Pages

The footer has six elements: 1) Document Control No.; 2) Original Date; 3) Date Last Revised; 4) Revised by; 5) Document Titled; and 6) Approximate No.of Printed Pages. These six elements are explained below.

Control Element Explanation

1) Document Control Number

The document control number has 10 alpha/numeric digits:

- The **first two** are alpha code indicators for the fourteen City departments, plus organization wide elements and elements of the environmental management system (EMS) as a system. The City department codes appear in Table I below.
- The **next five** numerals indicate the EMS series numbers for the type of control document. These number series correspond to the ISO 14001 EMS elements. The series numbers appear in Table II below.
- Next is an **alpha digit** indicating whether or not the document has been revised from its original form. An "N" indicates that the document is in its original form, i.e. "non-revised. All control documents first appear with this designation. An "R" after the series number indicates that the document has been revised from its original form.
- The **last two** numerals indicate the number of times this document has been revised.

2) Original Date

The original date is the date the document detailing an EMS element was officially accepted/incorporated in the City's EMS.

3) Date Last Revised

Indicates to the user what day the document became the official control document. Only the latest version of a control document will appear on the official electronic EMS site.

4) Revised By

Indicates to the user who authored/approved the latest version of the control document. A system document will indicate who in the organization are are authorized to revise a control document.

5) Document Title
The document title provides an alternative method for looking up the document needed. If one knows the document title as opposed to the document control number, they would still be able to locate the document.

6) When Printed Approximately-----Pages
Since all control documents are electronic documents, and in web format, they are not divided into pages, this element gives the user an idea of how large the document will be when printed out in "hard copy".

Table I
City Department Codes

1) Organization Wide (OW)	9) Emergency Services (ES)
2) Environmental Management (EM)	10) General Government (CG)
3) Financial Services (FS)	11) Information Services (IS)
4) Water Resources (WR)	12) Municipal Services (MS)
5) Community Development (CD)	13) Organizational Effectiveness (OE)
6) Community Services (CS)	14) Preservation (Pr)
7) Community Planning (CP)	15) Public Safety (PS)
8) Economic Development (ED)	16) Transportation (Tr)

Table II
Series Numbers for Controlled Documents

EMS Core Documents - Policy 01000	Training Awareness & Competence 07000 Communication
Aspect 02000	EMS Documentation 08000 Document Control Monitoring/Measurement
Impact 03000	Non-conformances 09000 Operational Control Emergency Preparedness & Response Corrective Action
Criteria for Determining Significance 04000	Records 10000 EMS Audits
Legal Requirements 05000	Management Review 11000
Objectives and Targets 06000 Environmental Management Plans Structure/Responsibility	

Document Control

Audit Criteria:

1. Is there a procedure for managing and controlling the documents that are being implemented in the EMS to ensure that:
   - They can be located;
   - They are periodically reviewed, revised as necessary, and approved for adequacy by
   - Only the current versions are in use;
   - They are located where they are needed;
   - Obsolete documents are no longer in use;
   - Documents that need to be retained are suitably identified for that action

2. Are documents legible, dated (with dates of revision) and readily identifiable?

3. Are documents maintained in an orderly manner and retained (if required) for a specific period?

4. Are there procedures and designation of responsibilities for the creation and modification of the various types of documents?

-

Document Control No.EM08103N00	Original Date04/27/99	Date last revised	Revised by: Larry Person
Document Titled:Document control 1			When Printed Approximately 1 Pages

Operational Control

Audit Criteria:

1. Have documented operational controls for activities associated with significant environmental aspects been developed and implemented?

2. Does the organization have procedures, which stipulate the operating criteria and operational controls for identified operations and activities?

3. Does the organization have procedures have procedures to cover control situations that deviate from the environmental policy and objectives and targets?

4. Has the organization assigned responsibility for reviewing, maintaining, and updating operational controls and procedures?

5. Have controls and procedures been communicated to suppliers and contractors relative to any significant environmental aspects of goods and services used by the organization?

6. Does the organization have a procedure to identify the significant environmental aspects of externally provided goods and services?

7. Have individuals responsible for operational controls been notified and qualified for those controls?

8. Have operators been made aware where operational controls are necessary to achieve and maintain compliance to regulatory requirements?

Document Control No. EMO9301N00	Original Date 04/27/99	Date last revised	Revised by: Larry Person
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Hazard Analysis Checklist ("What If" Checklist)

This checklist is a broadly based hazard assessment technique that combines the creative thinking of the Process Hazard Analysis (PHA) team with the methodical focus of a prepared checklist. The checklist method should be completed as follows:

1. Each PHA team is given a basic information package regarding the operation to be studied (i.e., process safety plan and information currently being gathered for each site).

2. The PHA team shall conduct a field tour of each site.

3. The review team methodically examines the operation from receipt of raw materials to delivery of finished product. At each step, the group collectively generates a listing of "what if questions regarding the hazards and safety of the operation.

4. When the review team has completed listing all spontaneously generated questions, it systematically goes through a prepared checklist to stimulate additional questions.

5. Subsequently, answers are developed for each question. The review team then works to achieve consensus on each question and answer. From these answers, a listing of recommendations is developed specifying the need for additional action or study. The recommendations, along with the list of questions and answers, become the key elements of the hazard assessment report.

City of Scottsdale
Process Hazard Analysis Checklist

Division:_____
Process Location:_____
Highly Hazardous Chemical Process Examined:_____
The following checklist shall be used as a tool to identify, evaluate and control hazards involved in processes which involve highly hazardous chemicals. For each process involving highly hazardous chemicals, examine each critical step (e.g., receipt, storage, process) through use of this checklist.

1. Hazards of the process

Applicable	N/A	
_____	_____	A minor release occurred
_____	_____	A major spill or release occurred
_____	_____	An employee accidentally inhaled the chemical
_____	_____	An employee came in contact with chemical (eyes/skin)

List controls and procedures in place to minimize the effects of the hazards checked "applicable" above.
Minor leak occurred_____
_____
Major release of chemical occurred_____
_____
Inhalation of chemical_____
_____
Employee came in contact with chemical_____

2. **Previous accident/injury history**_____

_____

3. **Engineering and administrative controls applicable to the hazards.**

Applicable	N/A	
_____	_____	Self contained breathing apparatus
_____	_____	Chlorine gas leak detectors
_____	_____	Emergency response monitoring services
_____	_____	Emergency repair kits
_____	_____	Local mechanical ventilation system
_____	_____	Chemical goggles and full face shield
_____	_____	Protective clothing
_____	_____	Eye wash and safety shower stations
_____	_____	Written emergency response procedures
_____	_____	Employee training and information
_____	_____	Written standard operating procedures
_____	_____	Material Safety Data Sheets
_____	_____	Release mitigation equipment (e.g., scrubber)

4. **List the consequences of failure of each engineering/administrative control listed above.**

Chlorine gas leak detectors_____
_____
Emergency response monitoring services_____
_____
Emergency repair kits_____
_____
Local mechanical ventilation system_____
_____
Chemical goggles and full face shield_____
_____
Protective clothing_____
_____
Eye wash and safety shower stations_____
_____
Written emergency response procedures_____
_____
Employee training and information_____

_____
Written standard operating procedures_____
_____
Chemical mitigation release equipment (e.g., scrubber)_____
_____

5. Facility Siting

1. Is the facility located in an area in which a chemical release may pose a health/safety threat to the public? (if yes, what procedures are in place to minimize threat to public)

_____

_____

_____

6. Human Factors

Inadequate training
Fatigue
Failure to follow established leak/spill procedures
Working alone at the facility
Knowledge of start-up, normal operations and emergency procedures
Failure to use proper personal protective equipment

For the items listed above, indicate procedures which are in place to provide reasonable assurance that the effects of human error will be minimized.

_____
_____
_____
_____
_____
_____

7. Qualitative evaluation of a range of possible safety and health effects of failure of controls on employees in the workplace.

_____
_____
_____
_____
_____

Checklist completed by (print):_____
Signature:_____
Date:_____

City of Scottsdale Environmental Procurement Program

Policies
Regulations
Procedures
Solicitations
Other Documents
Other Program Support

The City wishes to purchase environmentally preferred products and services. These products are defined as having a lesser or reduced effect on human health and the environment when compared to other products and services that serve the same purpose. Several factors, such as energy and water use, amount and type of waste generated, presence of hazardous ingredients and percentage of recycled materials contained, are considered when evaluating products and services in order to classify them as environmentally preferred.

The following policies, regulations, procedures and guidelines have been established to support the purchase of environmentally preferred products and services.

Policies

Environmental Procurement Policy (first adopted by the City Council 1991 and revised for inclusion in the Procurement Code in July 2000)

R2-205.1 Environmental Procurement Policy

A. On December 16, 1991 the City Council adopted an Environmental Procurement Policy, hereinafter referred to as Policy, to ensure the purchase of products that are less toxic, conserve resources, are recyclable and have recycled content. The Policy requirements are:

1. Departments shall review the products and services they purchase to identify and purchase the most environmentally responsible products and services available for the intended purpose and meeting the performance requirements;
2. Product testing and trial service is encouraged to evaluate environmentally responsible alternatives pursuant to established testing guidelines;
3. Specifications are not to exclude, without justification, environmentally responsible products such as recycled products, reusable products or products designed to be recycled and products consuming less resources;
4. Price preferences be given to environmentally responsible products and technologies in accordance with the established requirements for the applicable procurement process;
5. City projects shall incorporate energy efficient fixtures, appliances and mechanical equipment in any new construction, remodel and retrofit of City facilities.

B. Environmental Planning & Design Staff shall provide support to Purchasing and Departmental Staffs in their efforts to meet the requirements of this Policy.

C. Procedures and Guidelines may be established as necessary to ensure the continuation of a strong Environmental Procurement Program.

Regulations

Procurement Code
(Based on ABA Model, Adopted by City Council 1990, Revised July 2000)

Code Section 205 - Recycled and energy consumptive materials; life cycle costing; environmental procurement

Guidelines shall be established governing the review and approval of specifications for the procurement of selected materials based on considerations of recycling, energy conservation, life cycle costing and other environmental considerations.

(Note: Environmental Procurement Policy, see above, is now a Rule under this section)

Procedures

Procurement Code (Revised 2000)
Employees are encouraged to test new materials, especially those that are environmentally preferred. The testing guidelines in Section P2-203.1 also apply to testing for environmentally preferred products.

P2-203.1 Product Testing Guidelines

City Staff may test materials or services in a manner agreed upon with the material or service supplier provided the following guidelnes are applied:

A. City Staff is not required to test solely for supplier's benefit.

B. City Staff may not accept materials for testing unless those materials have been purchased through purchasing procedures provided by this Code.

C. Any testing shall be at the direction and convenience of the City Staff.

D. The City's name may not be used by any person in connection with any advertising, sale, or promotion of any product tested by the City staff.

E. Any materials testing shall be pursuant to a written testing agreement between the City and the supplier. The Purchasing Director must be notified of all testing agreements prior to commencement of testing.

P2-205.1 Hazardous Materials Procurement Guidelines

A. The purpose of this section is to minimize hazardous material purchases and hazardous waste generation throughout City operations, manage necessary hazardous materials and waste and eliminate all acutely hazardous waste streams. The City's Health and Safety Policy Manual includes examples and lists of the following categories of waste and a list of approved alternate materials.

B. The following categories describe various types of materials that may only be purchased pursuant to the restrictions stated in each category:

CATEGORY 1. Includes all acutely hazardous materials and/or chemicals which result in the generation of acutely hazardous waste. Under unusual circumstance, a material from the category could be purchased, but only if a WRITTEN EXCEPTION is granted by the Environmental Planning & Design Office. Materials in this category include, but are not limited to, radioactive materials, 2-4-D pesticide, and paints containing fungicides.

CATEGORY 2. Includes materials for which there are no viable alternatives at present. The City commits to review these materials and replace them with non or less toxic alternatives when available. Each time a material from this Category is purchased, the purchaser is responsible to determine that no acceptable substitutes have been developed. Materials in this category include, but are not limited to, asbestos containing materials, freons, lead containing paints, and refrigerant gases, especially CFC gases.

CATEGORY 3. Includes materials that can be recycled. The City commits to recycling as many materials as possible. The materials in this category may only be purchased if a method for recycling exists or is developed upon purchase. Materials in this Category include, but are not limited to, antifreeze, fluorescent lamps and ballasts, photograhic chemicals and tires.

CATEGORY 4. Includes materials which are a necessity for certain City operations, but are not approved for use by any departments or staff other than those specifically designated. Materials in this category include, but are not limited to, fertilizers and soil conditioners, reagent grade chemicals, agricultural poisons and ammonia.

Solicitation Documents

Bid Solicitation Documents

All City bid solicitation documents include the following section:

Environmental Procurement Policy

The City has established an Environmental Procurement Policy that encourages the purchase of the most environmentally responsible products and services available to meet the intended purpose. A price preference, to be determined on an individual basis, may be given to these products and services. We encourage the offer of alternatives that increase the environmental responsibility of the products or services called for in this solicitation. IF YOU WISH TO SUBMIT AN ALTERNATIVE, follow the procedures specified in the Instructions to Bidders, Approved Alternate Section of this document.

Other Documents

Doing Business Brochure

A brochure about doing business with the City is provided to vendors. The brochure contains the following statement:

"The City has a comprehensive environmental procurement program with a strong commitment to buy products that are non-hazardous, conserve resources, are recyclable and have recycled content. We invite vendors to provide information about their environmentally responsible products and services for evaluation."

Purchasing Card Guide

The Guide contains several references to environmental concerns:

Section 1. Program Goals include:

- Demonstrate Environmental Responsibility

Section 2. Includes:

- Purchasing Card Prohibition - Hazardous Potential
- Environmental Responsibility

Purchasing Card Prohibition - Hazardous Potential
Purchasing Cards **CANNOT** be used to purchase materials whose use or disposal may fall under hazardous materials handling, waste or disposal requirements. Items in this category include all chemical, herbicides, pesticides, paints, solvents, cleaning and most shop supplies.
You may only purchase an item of this type through the regular purchase requisition process pursuant to the requirements of Procurement Code Section P2-205.1, Hazardous Materials Procurement Guidelines and the Health and Safety Code Section titled "Procurement Guidelines", **UNLESS** it can meet the requirements under Procurement Code Section R2-190.1, Conditions for an Emergency Purchase **AND ALL** of the following:

- The identical product and brand has previously been approved for purchase
- A current MSDS is on file in the appropriate location or a current MSDS can be obtained with the purchase. (Note: a copy of the MSDS must also be in the vehicle used to transport the product from point of purchase to jobsite or point of storage to jobsite.)
- A Hazardous Potential Purchase Exception Report (HPPER) is filed with the Environmental Office or the same information is reported through the EMS software, ISOsoft 14001 Problem Identification Report.

If all these requirements are met, the Purchasing Card may be used for this type of purchase.
A special Hazardous Potential Purchase Guideline with details of the applicable code sections and the HPPER form are available from both the Environmental and Purchasing Offices as well as on the Environmental and Purchasing websites. Contact Larry Person at ext. 27889 or Lynn White at ext. 25709 for more information.
Environmental Responsibility. The City is an environmentally responsible organization. It is our policy to contribute to clean air by trip reduction whenever possible and to buy the most environmentally sensitive products available to accomplish the task. While the use of Purchasing Cards is intended to increase productivity, this gain should not be at the expense of our environmental responsibilities. Office Depot's DESKTOP ORDERING is the on-line system used by the City in conjunction with the Purchasing Card. The Office Depot catalogue offers many recycled products and ordering through this system reduces vehicle trips.

Sample
City of Scottsdale Purchasing Card
HAZARDOUS POTENTIAL PURCHASE EXCEPTION REPORT (HPPER)
(Procurement Code Sections: R2-190.1 and P2-205.1,
Health and Safety Code Purchasing Guidelines)

Name	Date
Work Unit	Department
Pro Card #	Purchase Date
Cost	Receipt #

Type of Product: (general category such as paint, cleaner, etc.)
Product(s) Purchased: (specific brand name)
Justification for Emergency Purchase:
Answer the following questions by circling yes or no.

1. It is the identical product and brand previously approved for purchased in my work area.	YES	NO
2. My work area has a current MSDS (Material Safety Data Sheet) on file for this precise product.	YES	NO
3. I obtained an MSDS for this product at time of purchase and kept it with me on the work site and in the vehicle when transporting this product	YES	NO

I certify that ALL above criteria were met for purchase of this product.
Signature and Date
Send completed form to: Environmental Office OR Input same information on EMS software, ISOsoft 14001, Problem Identification Report

Desk Top Order Training Script

Staff must have a Purchasing Card in order to use the DESKTOP system. Although staff has been through Purchasing Card training first, where the environmental concerns are stressed, the City's position as an environmentally responsible organization is again stressed in the training classes for the on-line ordering system. Items covered are:

- Contribution to clean air through trip reduction
- Conservation of gasoline, a finite resource
- Availability of products with recycled content

Caution against purchase of products with hazardous potential

Other Programs Supported

In 1993 the City joined the U.S. Conference of Mayors Buy Recycled Campaign to lend its support to the nationwide efforts to purchase goods with recycled content to help expand markets and achieve more competitive pricing. In 1990, prior to formally joining the program the City began purchasing recycled copier and printer paper and promoting recycled papers for all print jobs where feasible.

In subsequent years the City has continued its purchase of recycled paper products, and purchases other products with recycled content, as they become available and can be cost justified.

The U.S. Conference of Mayors has expanded their programs in this area and Buy Recycled is part of the larger - Recycling at Work Program

Environmental Protection Agency (EPA), Comprehensive Procurement Guidelines (CPG)

In 1998 the City decided to support the EPA CPG program that promotes the use of recovered materials. Because the City's use of federal funding is extremely low, the City is not required to follow this guideline. The City has chosen to support the program and purchase the items specified when they can be obtained at a justified price (considering the preferred environmental status) and in the appropriate time frame. Both Purchasing and Department staff members continually review product information to be aware of changes and additions to the environmentally preferred products that are available.

Paper and Paper Products – The City has long and distinguished record in the purchase of recycled printer and copier paper. The Graphics Shop promotes the use of recycled paper on all printing jobs and uses predominately recycled paper in the Copy Center. The on-line ordering system for miscellaneous office supplies includes many recycled paper products such as writing tablets, post-it notes and file folders.

Vehicle Products – The City has consistently purchased retread tires, starting prior to any environmental procurement programs. They are used exclusively in the larger sizes. While engine coolants and lubricating oils have been improved to perform better in our southwestern desert climate, the prices still make it difficult to justify purchase of these products. Periodically these products are re-tested and prices are re-checked.

Construction Products – These products have not been as widely available in the Southwest as other parts of the country, but availability is improving. The City has developed environmentally sensitive standards for building and remodeling City facilities.

Transportation Products - The purchase of these products is, most commonly, part of a formal procurement for construction, services or products. The City's specifications do not prohibit environmentally preferred products and the solicitation documents contain a statement encouraging vendors to bid environmentally preferable alternatives.

Park and Recreation Products – The City has not purchased any products specified under this category. Running tracks and artificial playground surfaces have not been included in the development of City parks.

Landscaping Products – The City contracts a large portion of landscape maintenance and has not specified, beyond the standard solicitation language, environmentally preferred products or processes. However, the City's current contractor does compost. The City's use of the compost product is rather limited, as a product richer in nutrients is required. However, the other products specified in this category are purchases from time to time.

Non-Paper Office Products – The City's contracted office products vendor does provide a comprehensive line of office products with recycled content. Their catalog contains a recycle symbol to identify these products. Staff is encouraged to purchase these products during their training to use the automated order system.

Miscellaneous Products - At this time, the only product in this category is pallets. The City receives pallets with products being shipped in and reuses those pallets. As of this date, it has not been necessary for the City to purchase pallets. In the event they are required, it is staff's intent to purchase those with recycled content.

For More Information on this program contact the Purchasing Director at (480) 312-7015 or e-mail: mwarren@ScottsdaleAZ.gov

Emergency Preparedness and Response

Audit Criteria:

1. Have emergency preparedness and response procedures been established, implemented and tested?

2. Has the organization reviewed, and where necessary, revised its emergency preparedness and response procedures after occurrence of accidents or emergency situations?

3. Does the scope of the emergency preparedness and response procedures address the prevention and mitigation of environmental impacts?

4. Does the organization periodically test such procedures?

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Excerpt from Emergency Response Plan

EMERGENCY RESPONSE

The City's Emergency Response Plan is designed to minimize hazards to human health or the environment including hazards created by any unplanned, sudden, or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water. The provisions of the City's plan are to be carried out immediately in the event of any such contingency. The plan will not be implemented for minor fires, such as trash basket fires or minor spills that can easily be contained and cleaned up. In the event of a fire, explosion, or release of hazardous waste or hazardous waste constituents, which could threaten human health or the environment, a specific course of action should be followed.

SUMMARY OF SPECIFIC PROVISIONS

Whenever there is an imminent or actual emergency situation, the Emergency Coordinator (or designee) will immediately call 9-1-1, activate internal alarms, and otherwise alert all facility personnel that may be impacted by the incident, initiate evacuation of facility, notify appropriate State or local agencies as needed, initiate Emergency Communications Manual procedures, identify the character, exact source, amount and areola extent of any released materials, assess possible hazards to human health and/or the environment, gather available data such as MSDS, records, maps, etc., serve as primary contact for arriving emergency responders, take any safe, reasonable and necessary actions to contain the spread of the spill or fire, stop operations and perform any shutdowns necessary, provide for the proper absorption, treatment, storage, and disposal of any spilled hazardous waste (i.e., use of hazardous waste contractor), assess all equipment and operations for safe start-up after incident, make all appropriate follow-up notifications and reports to agencies, and ensure cleanup and restoration of any contaminated or damaged equipment or facility.

A Rural/Metro Fire Department station provides hazardous material response to City facilities. Emergency response preparedness through pre-planning is an ongoing process with this station.

In addition to this, fire protection equipment includes fire extinguishers throughout City facilities and fire sprinkler systems. Spill control equipment includes bags of absorbable at several points throughout City facilities where hazardous materials are used and hazardous waste generated, "pig" absorbent blankets, pillows, diking material, containment units, and related spill equipment. Also, emergency eyewash stations and shower equipment are provided where appropriate.

The City's evacuation plan and routes, provided by RMD, apply for any evacuation necessitated by fire, explosion, or hazardous material release.

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1999 Employee Survey Results

Thanks to everyone who completed a 1999 EMS Employee Survey. It was first distributed at the Employee Forum in March 1999 and is available electronically to employees only at on the City's Intranet.

Eco Gecko encourages any employee who hasn't completed a survey to use the link above to complete a survey prior to September 30, 1999. The survey will be repeated in mid-2000 to annually track trends in employee awareness of, involvement in, and opinions about environmental issues in City operations.

Respondents to the '99 survey told us:

What we are doing well:

- **91%** think that in City operations, employees are doing a good job of energy conservation
- **94%** think that in City operations, employees are doing a good job of recycling.
- **88%** think that in City operations, employees are doing a good job of water conservation.

What we could improve

- When asked to respond to the comment "I have noticed that City operations do a good job of conserving paper.", **32%** indicated that they **strongly disagree** with the statement.
- **18%** think that in City operations, employees could do a better job of fuel conservation.
- **41%** think that in City operations, employees could do a better job of trip reduction.

Here are more survey results related to these employee perceptions and some suggestions from Eco Gecko to continuously improve our performance.

Energy Use

Lighting	**22%** of employees don't have the ability to turn off their own lights to conserve energy, of those who can, **92%** of employees routinely turn off their lights when not in use **Eco says** - unfortunately it is often not cost effective to re-wire areas with individual light switches but you can turn off all task lighting and lighting in conference rooms, restrooms and storage areas that are individually switched
Equipment	**77%** of employees don't routinely turn off computers, printers and copiers **Eco says** that even on low energy mode, there is wasted energy. Please turn this equipment off overnight and especially on week-ends and holidays. **61%** of employees have small appliances in their work area. **Eco says** that half refrigerators, personal heaters and incandescent task lights waste energy. Shared full size refrigerators, area controlled temperature settings, and compact fluorescent light bulbs are much more energy efficient. Contact Community Maintenance at X25559 for more information on compact fluorescents and any concerns about your area heating and cooling.

Paper Use

Recycled Paper	**25%** of employees typically use something other than recycled content paper in their copiers and printers **Eco says** one of the goals of our environmental procurement program is to use recycled content paper 100% of the time with rare exceptions. Remember if you must use color paper, it is available with a recycled content.
Copies	**50%** of employees typically send hard copies of electronic correspondence to others who have computer access. **Eco says** hard copies should only be used when an individual does not have computer access. **67%** of employees use double sided copying but they say they use it less than **25%** of the time. **Eco says** all City copiers can easily make 2-side copies. All multi-page documents should be copied as 2-sided documents. Contact Graphics Staff X27622 if you need more information about 2-side copying. **60%** of employees print hard copies of electronic documents to review a draft rather than review it electronically. **Eco says** please eliminate this practice and use your electronic capabilities. **70%** of employees routinely use the print icon short cut instead of the drop down menu print command. **Eco says** use the drop down menu print command when you only need to print certain pages or sections of a multi-page document. Call the I.S. Help Desk at X27827, if you are not sure how to do this **3%** of employees routinely print test pages when they turn on printers. **Eco says** it is not necessary to print this page prior to using your printer. Call the I.S. Help Desk at X27827 for help changing the default settings on printers to eliminate test page printing. **20%** of employees print and store hard copies of e-mail. **Eco says** set-up an e-mail file on one of your hard drives. Contact I.S. Help Desk at X27827 if you need help doing this. **5%** of employees never use electronic correspondence with people outside the organization. **Eco says** get e-mail addresses for people you deal with routinely, set them up in your Exchange personal directory and communicate via e-mail. Call I.S. Help Desk at X27827 if you need help in setting this up.

Recycling

Paper	**70%** of employees recycle paper printed on one side. **Eco says** - recycling paper printed on one side is good, but there are even better ways to use paper! Before you recycle it, first use the other side of the paper. Paper printed on only one side is called "half passed" paper. **Idea #1** Keep a stack of half passed paper next to your printer or copier and use it for printing draft or file copies. **Idea #2** Use half passed paper as scratch paper **Idea #3** Make note pads out of half passed paper. The Graphics shop will help, contact them at x22338
Containers	**63%** of employees have a personal recycling container at their workstation **Eco says** - 100% of employees should have and use a personal recycling container. Eco uses a cardboard box at Eco's workstation. If you want a "snazzy" one instead, contact x27778
Trash Cans	**25%** of employees report that the trash can in their area is full daily. **Eco says** - the chances are very good that many of the things in your area's trash can could be recycled instead. For help on how to do this, contact the Environmental Management Office x27778
Toner/ Ink Cartridges	**22%** of employees throw used cartridges into the trash **Eco says** return toner cartridges to the manufacturer using the box and mailing label provided. Return copier toner cartridges to the copier contractor's representative who brings the new supplies. Send ink cartridges via interoffice mail to the Warehouse for recycling. The Warehouse returns them to the manufacturer.
Batteries	**35%** of employees throw batteries into the trash can **Eco says** - the City collects and recycles many types of batteries --household, cellular phone, pager, button, nicad, lithium, rechargeable, and button batteries. Contact x27889 for information on how and where to recycle these batteries or check out Eco's web site for more information.
Buy Recycled	**25%** of employees view quality and cost as overriding factors preventing purchase of recycled content product options. **Eco says** - the City's Environmental Procurement Policy encourages purchase of recycled content products. Eco encourages research to discover if recycled content products are available as options to products you typically purchase. Contact the Purchasing Office at x25700 for help.

Fuel Conservation

Fleet Vehicles	**35%** of employees typically use City Fleet vehicles **Eco says** - 38% of our fleet vehicles are alternatively fueled, so try to use one of these vehicles. Eco also encourages you to minimize the miles you travel on City business by consolidating trips or even using the City's new Video Teleconferencing technology for meetings.
First Fuels	**67%** of employees don't follow the City's First Fuels Policy, and the majority of these

Policy	employees don't even know about that policy **Eco says** - Dick Bowers signed the City's First Fuels Policy in 1996. It specifies that in a dual fueled vehicle, the alternative fuel (CNG) should always be used first. If needed, the gasoline can be used after the CNG tank is empty. CNG tanks should be filled daily if necessary. Contact Fleet Management x25570 for help on how to use CNG in the City vehicle you typically use
Personal Vehicle Use	**45%** of employees use personal vehicles for City business **Eco says** - please try to use a City fleet vehicle instead, especially alternatively fueled vehicles. Less than 1% of employee's personal vehicles are alternatively fueled, but more than 25% of City fleet vehicles are alternatively fueled

Water Conservation

Low Flow Bathroom Fixtures	**58%** of employees don't know about low flow bathroom fixtures used throughout the City. **Eco says** - to learn more about low flow fixtures contact the City's Water Conservationist at x25659 and to find out whether these fixtures are in your building contact Community Maintenance at X25999.
Running Water	**12%** of employees don't know who to contact to report wasted water. **Eco says** to report wasted water contact Community Maintenance: ° leaks, stuck automatic faucets, running toilets, etc. at x25999 ° irrigation system problems at x25648

Trip Reduction

Commuting	**88%** of the time, employees drive alone to work and **52%** of employees commute more than 10 miles. **Eco says** carpool, vanpool, ride the bus, or if you commute less than 10 miles you might walk or bike to work instead. Our organizational goal is to reduce the percent of single occupant trips to and from work to 60%. Contact the City's Trip Reduction Coordinator at x27656 for help getting started on one of these alternatives.
TeleWork	**5%** of the time, employees telework (telecommute). **Eco says** telework works for more employees now and is gaining favor with supervisors. Contact your supervisor if you think you are a candidate to telework and then contact the City's Trip Reduction Coordinator at x27656.
City Business Trips	**45%** of employees use their personal vehicle for City business. **Eco says** less than 1% of personal vehicles are alternatively fueled, but over 25% of City fleet vehicles are alternatively fueled. Please utilized the City's alternatively fueled vehicles as your first choice for doing City business.

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Nonconformance and Corrective and Preventative Action

Audit Criteria:

1. Are there procedures in place that are being implemented for handling EMS nonconformances?

2. Do these procedures define responsibility and authority for handling and investigating nonconformances?

3. Do they define responsibility and authority for taking action to mitigate any impacts cause?

4. Do they define responsibility and authority for initiating and completing corrective and preventive action?

5. Have the corrective and preventive actions been appropriate to the magnitude of the problems and impacts?

6. Following corrective and preventive actions, have any procedures that were affected by these actions been changed accordingly?

7. Is the information on corrective and preventive actions being recorded and provided to senior management for management review?

Corrective Preventive Action Plan

8-Discipline Corrective Action Method

1	**Team Members**	**Champion**
2	**Concern Description**	
3	**Containment Actions**	**Percent Effective**
4	**Root Causes**	

5	**Corrective Actions**
6	**Implementation Effective Date** **Percent Effective**
7	**Actions to Prevent Recurrence**
8	**Congratulate Your Team**
Completed By	**Date**
Received in EP&D By	**Date**
Disposition by ISO Management Core Team	

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Records

Audit Criteria:

1. Is there a procedure for the identification, maintenance and disposition of environmental records?

2. Are EMS records:
   -- legible
   -- identifiable and traceable to the activity, product, or service involved
   -- stored and maintained so as to be readily retrievable and protected
   -- against damage, deterioration or loss

3. Have the retention times for EMS records been established and recorded?

4. Are the EMS records being retained for the periods established?

5. Are the EMS records kept to demonstrate conformance to ISO 14001?

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ISO 14001 Internal Auditing Criteria

The objectives of these internal auditing criteria questions are to test our organization's Environmental Management System against the requirements of the ISO 14001 standard.

Policy

Audit Criteria:

1. Does the organization have an Environmental Policy?
2. Does the policy reflect the organization's values?
3. Does the policy drive the setting of Environmental objectives and targets?
4. Does the policy include a commitment to the prevention of pollution?
5. Does the policy include commitments to continual improvement and compliance to relevant laws and other requirements to which the organization subscribes?
6. Is the policy appropriate to the nature, scale and environmental impacts of the organization's activities, products or services?
7. Is the policy communicated to all employees and made available to the public?
8. Is it clear that the policy has senior management's endorsement and commitment?
9. Does the policy provide a framework for setting and reviewing environmental objectives and targets at all levels within the organization?

Environmental Aspects

Audit Criteria:

1. Has a procedure to identify the significant environmental aspects of operations, products, and services been established and implemented?
2. Does this procedure include determining which aspects the organization can be expected to have influence over?
3. Has the organization developed criteria for identifying those aspects, which have or can have significant impacts?
4. Have all aspects which can have significant impacts been designated as significant aspects?
5. Have all aspects with regulatory requirements been designated as significant aspects?
6. Is the procedure to identify significant environmental aspects exercised periodically to maintain currency?
7. Is the procedure generally sufficient given the nature, scale and potential environmental impacts of this organization?

Legal and Other Requirements

Audit Criteria:

1. Has a procedure to identify and provide access to applicable laws and regulation, and other environmental requirements to which the organization subscribes been established and implemented?
2. Does the procedure identify environmental legal requirements for activities, products and services?
3. Does the procedure address applicable international, national, states, provincial, local or contractual requirements?
4. Is the flow of information on legal requirements reliable, competent, and unobstructed?
5. Have the legal and other requirements been translated into non-technical language and brought to the individual(s) that will have primary responsibility for compliance? (This is the meaning of "provide access" in the standard.)
6. Does the procedure ensure that when new aspects arise they will be reviewed for any regulatory requirements?

Objectives and Targets

Audit Criteria:

1. Have documented environmental objectives and targets been established that are based on the EMS policy and take into account the significant environmental aspects, legal and other requirements and the views of interested parties?
2. Has the organization developed a method or criteria for determining whom its "interested parties" are for the purposes of EMS?
3. Does the organization keep the views of interested parties?
4. Are there objectives and targets for all significant environmental aspects? (Even those that have already achieved their objective?)
5. Is the objective for those aspects, which have regulatory requirements to reach compliance?
6. In setting objectives and targets, did the organization consider its technological options and its financial, operational and business requirements?
7. Is the commitment to prevention of pollution discernible in the objectives and targets?
8. Have the objectives and targets been distributed to each relevant function and level within the organization?
9. Are the individuals that need to achieve objectives and targets aware of what is expected of them?

Environmental Management Programs

Audit Criteria:

1. Are there management programs for achieving all objectives and targets?
2. Do they designate responsibilities for achieving the objectives and targets at each relevant function and level of the organization?
3. Do they include the means and time frame by which they are to be achieved?
4. Have the relevant programs been revised to address new or modified activities, products or services?
5. Do the management programs incorporate such elements of the EMS as:

-- Structure and responsibility
-- Training, awareness and competence
-- Records, identification and retention
-- Emergency preparedness and response
-- Operational control
- - -Monitoring and measuring
-- Performance indicators

Structure and Responsibility

Audit Criteria:

1. Have defined roles, responsibilities and authorities been established and communicated to the appropriate employees?
2. Have sufficient financial, technical and personnel resources been made available to implement the EMS?
3. Has a management representative been appointed by senior management to oversee the EMS and to report on its performance and progress?
4. Are roles, responsibilities and authorities appropriately specified within the environmental management programs?

Operational Control

Audit Criteria:

1. Have documented operational controls for activities associated with significant environmental aspects been developed and implemented?
2. Does the organization have procedures, which stipulate the operating criteria and operational controls for identified operations and activities?
3. Does the organization have procedures have procedures to cover control situations that deviate from the environmental policy and objectives and targets?
4. Has the organization assigned responsibility for reviewing, maintaining, and updating operational controls and procedures?
5. Have controls and procedures been communicated to suppliers and contractors relative to any significant environmental aspects of goods and services used by the organization?
6. Does the organization have a procedure to identify the significant environmental aspects of externally provided goods and services?
7. Have individuals responsible for operational controls been notified and qualified for those controls?
8. Have operators been made aware where operational controls are necessary to achieve and maintain compliance to regulatory requirements?

Emergency Preparedness and Response

Audit Criteria:

1. Have emergency preparedness and response procedures been established, implemented and tested?
2. Has the organization reviewed, and where necessary, revised its emergency preparedness and response procedures after occurrence of accidents or emergency situations?
3. Does the scope of the emergency preparedness and response procedures address the prevention and mitigation of environmental impacts?
4. Does the organization periodically test such procedures?

Training, Awareness and Competence

Audit Criteria:

1. Has the organization identified and evaluated training needs for all personnel and contractors, where appropriate, whose functions may create a significant impact on the environment?
2. Has the organization identified training needs for providing general awareness to all employees and managers at each relevant function and level?
3. Does training emphasize the importance of compliance with all applicable laws and regulations, conformance with the organization's environmental policy and with the requirements of the EMS?
4. Does training emphasize the significant environmental impacts, actual or potential, of work activities?
5. Does training emphasize the environmental benefits of improved personal performance relative to environmental aspects?
6. Does training emphasize the roles and responsibilities of employees and on-site contractors in achieving conformity with the environmental policy and procedures including emergency preparedness and response requirements?
7. Does training emphasize the potential consequences of departure from specified operating procedures?
8. Are all employees whose work can cause significant environmental impacts competent by training, experience and education?
9. Has a determination of competence for such employees been made and recorded?
10. Does the employee know that he is deemed to be so competent?

Communications

Audit Criteria:

1. Have internal communications procedures regarding EMS issues been established and implemented?
2. Does the organization have procedures for receiving, documenting, and responding as necessary to relevant communication from external interested parties?
3. Has the organization considered procedures for external communication of its significant environmental aspects?
4. Has the organization recorded its decision on whether to have procedures for external communication of its significant environmental aspects?

Monitoring and Measurement

Audit Criteria:

1. Are key characteristics of significant environmental aspects, operational controls and progress toward objectives and targets being monitored and measured (e.g., record reviews, performance observations, trend analyses)?
2. Does the organization maintain procedures to record information to track performance, relevant operational controls and conformance with the environmental objectives and targets?
3. Have performance indicators been specified within the environmental management programs to facilitate tracking of progress towards objectives and targets?
4. Is monitoring equipment calibrated and maintained and are records of this process kept according to the organization's procedures?
5. Have procedures to determine the status of compliance (e.g., compliance audits or inspections) with the law been established, and are they being implemented?
6. Is the information obtained from monitoring and measurement properly recorded and prepared for use during the management review?

EMS Audit

Audit Criteria:

1. Is there a program and procedure for EMS audits and is it being implemented?
2. Can the procedure for EMS audits determine whether the EMS conforms to the organization's environmental policy?
3. Can it determine whether the EMS conforms to the organization's planned arrangements for environmental management?
4. Can it determine whether the EMS conforms to ISO 14001?
5. Can it determine whether the EMS has been properly implemented and maintained?
6. Is the EMS audit schedule based on the importance of the activities and the results of previous audits?
7. Do the audit procedures cover the audit scope, frequency, and methodologies?
8. Do the audit procedures cover the responsibilities and requirements for conducting audits and reporting results?
9. Is the information from EMS Audits being recorded and reported to senior management for the management review?

Nonconformance and Corrective and Preventative Action

Audit Criteria:

1. Are there procedures in place that are being implemented for handling EMS nonconformances?
2. Do these procedures define responsibility and authority for handling and investigating nonconformances?
3. Do they define responsibility and authority for taking action to mitigate any impacts cause?
4. Do they define responsibility and authority for initiating and completing corrective and preventive action?
5. Have the corrective and preventive actions been appropriate to the magnitude of the problems and impacts?
6. Following corrective and preventive actions, have any procedures that were affected by these actions been changed accordingly?
7. Is the information on corrective and preventive actions being recorded and provided to senior management for management review?

Management Review

Audit Criteria:

1. Is senior management, on a regular basis, reviewing the structure and performance of the EMS to determine the effectiveness of the EMS and identify potential opportunities for improvement?
2. Do management reviews address the possible need for changes to policy, objectives and other elements of the organization's EMS, in light of performance information, audit results, changing circumstances and the commitment to continual improvement?
3. Is senior management provided sufficient information for this review, including the results of:

   -- Monitoring and measurement
   -- EMS audits
   -- compliance status
   -- corrective and preventive actions
   -- progress towards objectives and targets

4. Is the review (including the decisions taken) recorded and are the records kept for a suitable period of time?
5. Are these management reviews planned and organized by the EMS management representative?

EMS Documentation

Audit Criteria:

1. Are the core elements of the EMS documented, including all of the required procedures?
2. Does the documentation of the core elements of the EMS describe their interaction?
3. Does documentation of the core elements of the EMS provide direction to related documentation?

Document Control

Audit Criteria:

1. Is there a procedure for managing and controlling the documents that are being implemented in the EMS to ensure that:

   -- They can be located;
   -- They are periodically reviewed, revised as necessary, and approved for adequacy by authorized personnel;
   -- Only the current versions are in use;
   -- They are located where they are needed;
   -- Obsolete documents are no longer in use;
   -- Documents that need to be retained are suitably identified for that action

2. Are documents legible, dated (with dates of revision) and readily identifiable?
3. Are documents maintained in an orderly manner and retained (if required) for a specific period?
4. Are there procedures and designation of responsibilities for the creation and modification of the various types of documents?

Records

Audit Criteria:

1. Is there a procedure for the identification, maintenance and disposition of environmental records?
2. Are EMS records:
   -- legible
   -- identifiable and traceable to the activity, product, or service involved
   -- stored and maintained so as to be readily retrievable and protected
   -- against damage, deterioration or loss
3. Have the retention times for EMS records been established and recorded?
4. Are the EMS records being retained for the periods established?
5. Are the EMS records kept to demonstrate conformance to ISO 14001?

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ISO 14001 ENVIRONMENTAL MANAGEMENT SYSTEM STANDARD

This document contains language directly from the ISO 14001 standard organized in outline format.

1.1 Top management should define the organization's environmental policy. (Section 4.1)

1. The organization should establish and maintain a procedure or process to identify the environmental issues pertaining to its activities, products, and services that it can control and over which it can be expected to have an influence, in order to determine those aspects that have or can have a significant impact on the environment. (Section 4.2.1)

2. The organization should establish and maintain a procedure or process to identify and have access to legal and other requirements that are directly applicable to the environmental aspects of its activities, products, and services (Section 4.2.2)

3. The organization should establish and maintain documented environmental objectives and targets or each relevant function and at each level within the organization. (Section 4.2.3)

4. The organization should establish and maintain a program for setting and achieving its objectives and targets. (Section 4.2.4)

3. IMPLEMENTATION AND OPERATION N/A Complies Does not comply

3.1 The management of the organization should define a structure and provide resources to effectively manage environmental issues. (Section 4.3.1)

3.2 The organization should identify the training, education, and skills needed and should provide appropriate training for all personnel whose work may significantly affect the environment. (Section 4.3.2)

3.3 The organization should establish and maintain internal and external communication procedures regarding environmental aspects of the organization's activities and its EMS. (Section 4.3.3)

3.4 The organization should identify and maintain information (e.g., process information; organizational charts; internal standards and operation procedures; site emergency plans; etc.) related to the EMS. (Section 4.3.4)

5. The organization should establish and maintain procedures or controlling all the documents that ISO 14001 requires for the effective implementation of the EMS (Section 4.3.5)

3.6 The organization should develop and maintain documented procedures to facilitate the implementation of its environmental policies, objectives, targets, and programs. (Section 4.3.6)

3.7 The organization should establish and maintain procedures for prevention of and response to accidents and emergency situations, and for the prevention and mitigation of the environmental impacts that may be associated with them. (Section 4.3.7) r r r

4.1 The organization should establish and maintain documented procedures to monitor and measure the key characteristics of those of its processes that can have significant impact on the environment. (Section 4.4.1) r r r

2. The organization should establish and maintain documented procedures both for handling and investigating non-conformance and for initiating corrective and preventive action. (Section 4.4.2)
3. The organization should establish and maintain procedures for the identification, maintenance, and disposition of the environmental records needed for implementation and operation of the EMS.

(Section 4.4.3)
4.4 The organization should establish and maintain a program and procedures for periodically conducting EMS audits. (Section 4.4.4)

5.1 To ensure the continuing suitability and effectiveness of the EMS, the organization should establish and maintain a process, to be implemented at defined intervals, for management to review and evaluate the EMS. (Section 4.5)

END OF SCORESHEET

UST AND AST CHECKLIST

This checklist is designed to aid mangers who are evaluating both types of tanks for environmental and technical compliance.

USTs

Yes No

Does (or will) the UST contain petroleum or CERCLA hazardous substances?

If no, go to the RCRA Parts 264; 265 regs. If yes, it has to comply with the following regs:

1. Have you properly notified the state or local agency about this UST (40CFR Part 280.20)?
2. Have you made this notification on EPA from 7530 - or the designated state form?
3. If it is a new UST, does it comply with the installation standards (Part 280.20)?
4. If it is an existing UST, and you're not "closing" it have you adequately upgraded the tank (part 280.21)?
5. Does the tank comply with the general operating requirements of 280, SubpartC? r r
6. Is the proper leak detection system installed with this tank (Part 280.40)?
7. Have you properly reported any "suspected releases" from this UST (Part 280.50)?
8. Have you investigated and confirmed these releases under Part 280.50)?
9. Have you reported and cleaned up any regulated spills and overfills (Part 280.53)?
10. If suspected release is confirmed, have you complied with 280.70?
11. If "temporary closing" the UST, have you complied with 280.70?
12. If "permanently closing," or initiating a "change in serve," have you complied with 280.71?
13. Have you complied with the following additional notification requirements (if applicable):

- Any suspected or confirmed releases-Part 280.50, 280.61
- Regulated spills or overfills-280.53

- Corrective action measures-280.62-6
- Permanent closure or change in service-280.71r r

1. Do you have the following records in your files if applicable):

- A corrosion expert's analysis-if corrosion protection is not used (280.20)?
- Corrosion-protection equipment documentation (280.31)?
- UST repair documentation (280.33)?
- Release-detection methods (280.45)?
- Site-investigation results-when permanently closing (280.74)?

1. Are these records filed at either the UST site or a "readily available" alternative site (280.34)?
2. Have you obtained the proper insurance (Part 280, subpart H)?

USTs or ASTs

RCRA Parts 264, 265
If the UST or AST contains RCRA hazardous wastes, and you are -A large-quantity generator or TSDF, are you in compliance with the regs governing the following:
Yes No

1. Tank assessments (264.191; 265.191)?
2. New-tank standards (264.192; 265.192)?
3. Release detection (264.193; 265.193)?
4. General Operating requirements (264.194; 265.194)?
5. Inspections (264.195;265.195)?
6. Spill response (264.196;265.196)?
7. Closure, post-closure (264.197; 265.197)?
8. Special requirements-
9. Ignitable or reactive wastes (264.199; 265.198)?
10. Incompatible wastes (264.199; 265.199)?

-A small-quantity generator,

1. Does this tank properly comply with 40 CFR Part 265.201

   (special requirements for SQGs with tanks)?

2. Have you evaluated the effect on this UST or AST of EPA's

proposed VOC air-emission limitations?

ASTs

Clean Water Act:
Have you an adequate SPCC plan for tanks containing certain amounts of "oil" (40 CFR Part 112)?
Have you evaluated whatever and how the tank or tank farm will be regulated under the new NPES stormwater permit program?
Clean Air Act:
Do tank fugitive emissions involve any soon-to-be regulated ir toxic?
Have you considered improved controls or source-reduction methods for these emissions?
Is your plant considered "major source" of ozone precursors?
CWA AND CAA PERMITTING CHECKLIST
This checklist is designed to aid a Clean Water Act and Clean Air Act permitting audit. I will help answer the following question: are your operations in adequate compliance with the permitting regs?
Clean Water Act (NPDES permits)
Yes No

1. Have you included the following areas, to make sure that all regulated discharges are permitted?

   Tank farms?

   All other storage areas for raw materials, intermediate or finished products?
   Materials loading/unloading areas?
   Industrial plant yards?
   Access road or rail lines used to transport chemicals?
   Hazardous waste collection and/or storage areas?
   Hazardous waste management sites?
   Nonhazardous waste (trash) management sites?
   Manufacturing buildings?

   Yes No

2. Have you examined these areas for the following discharge types?r r

   Industrial process wastewater?
   Sanitary or noncontact cooling water?
   Stormwater (to a municipal separate storm sewer)?
   Releases to POTWs)i.e., down the drain)?

3. Have you evaluated the discharge potential of any new plants or expansions?r r

   Industrial process wastewater?
   Sanitary or noncontact cooling water?
   Stormwater (to a (municipal separate storm sewer))?
   Releases to POTWs (i.e., down the drain)? r r

4. Using site maps, have you located any (streams, rivers, or other waterbodies), that are potentially associated with facility discharges (including existing and future discharges)?
5. If yes, are any of these discharges now permitted under the NPDES program?
6. If existing discharges are not permitted, have you taken the following actions to assess the discharge permitting status?r r

   Sampled and tested the discharge for pollutant loadings?
   Considered halting the discharge until test results are in?
   Met with plant manager about permitting requirements, discharge source, etc.?
   After test results, notified company lawyer about possible noncompliance?
   Gathered proper applications to initiate permitting (e.g., EPA form 3510-1 and for new discharges)?

7. If facility expansion will necessitate a discharge, have you taken the following actions?

   Evaluated the likely composition of the discharge?
   Met with plant manager about permitting requirements, discharge source, etc.?
   Gathered proper applications to initiate permitting
   (e.g., EPA form 3510-1 and 3510-2D for new discharges)?
   (e.g., EPA form 3510-1 and 3510-2F for stormwater)?
   Planned to submit permit application at least 180 days in advance of commencing the discharge?
   Ed. Note: NPDES permits are required any "point source" that discharges "pollutants" to "waters of the United States"

8. If existing discharge is already permitted, have you checked discharge monitoring reports (DMRs) to

make sure discharge is meeting the permit's parameters?
9. Are DMRs initiated at the frequency specified by the permit?
10. Are DMRs kept in the company files?
11. Is a compliance mechanism in place to periodically monitor the DMR data?
12. I the discharge is a POTW release ("down the drain"), have you contacted the POTW authority to determine pollutant limitation andopermitting requirements?
13. If already permitted by POTW (not every sewage plant has permits, though), have you monitored the discharge to make sure it meets its permit limitations?
14. Have you made sure that the POTW discharge does not include new materials that we not present in the discharge when the permit was issued?

Clean Air Act permits

1. Have you contacted the state about the status of their CAA permitting program?
2. Have you found out exactly when, if necessary, you will have to submit an operating permit

   application?

3. Are the necessary forms available, and have you requested them and/or been placed on the air office's mailing list?

   Determine whether you have to be permitted:

4. Have you assessed all relevant aspects of emissions sources?

   Mixing room?

   Storage tanks/containers?

   Process vessels/units?Equipment cleaning areas?

5. Have you examined at least the following information sources?

   Existing air quality permits?
   Chemical purchasing inventory records?
   Raw material inventory records?
   Title III reports-Forms Rs?
   Plant flow diagrams?
   MSDSs?
   Batch Sheets?
   CTGs?
   Emergency release reports?
   Emissions testing results?

6. Does your facility emit any of the following substances?

   Volatile organic (VOCs)?
   Nitrogen oxides (Nox)?
   Sulfur dioxide (S02)
   PM-10 (particulates)?
   Carbon monoxide (CO)?
   Any f 189 regulated air toxics?
   CFC-11,-12,-113,-114, -115, halons, and HCFCs?
   Carbon tetrachloride?

Methyl chloroform?

7. Have you determined whether you are a "major source" of any of these chemicals?r r

   VOC or Nox-100 or more tons per year (TPY)?
   50 or more TPY in "serious" ozone nonattainment (OZN) areas?
   25 or more TPY in "severe" OZN" areas?
   So2 in a regulated electric utility?
   PM-10, 70 or more TPY in "serious" ranked PM-10 areas?
   CO-50 TPY in "serious" areas for CO?
   10 or more TPY of one hazardous air pollutant (HAP), or 25 or more TPY of more than one HAP?
   Ozone depleters, all sources affected by phaseouts

8. Do you know how your region is "ranked" (e.g., serious or severe) for the following pollutants (in order to help

   determine whether you are major source)?
   Ozone precursors (VOCs and Nox)? CO?
   PM-10 (particulates)?

9. If you will have to obtain an operating permit, have you consulted engineers to find out how to

reduce/eliminate emissions to below regulatory levels?

A CHECKLIST FOR CONTINGENCY PLANNERS

ALL generators Yes No
Have you:
Appointed and thoroughly trained an emergency coordinator?
Appointed and thoroughly trained one or more alternates to the coordinator?
Ensured that coordinators and alternates
Have full knowledge of the plan?
Have the proper authority to implement it?
Know the types and locations of all chemical wastes stored in the plant?
Know the layout of the facility and where records are kept?
Ensured that at least on of these officials is present at the facility at all times?
Posted emergency response numbers by each telephone at the facility?
Acquired adequate supplies of appropriate person-protective and spill-control equipment?
Contacted neighboring companies in related businesses in order to share equipment and expertise?
Updated equipment supplies, telephone numbers, worker training, and the identities of coordinators and designees, as needed?
Trained all appropriate workers in the use of equipment and in emergency procedures? r r
Large-quantity generators
Have you also:

- Established a written contingency plan that fully complies with the requirements of 40 CFR Parts 264 and 265, Subpart D?
- Sent copies of the plan to all local agencies that would be involved in an emergency response (e.g., fire department, state police, hospitals, local emergency planning committees)?
- Named specific coordinators and alternates in the written contingency plan?

Checklist for "Greeting Inspectors"

Before the Inspection:
Have you designated official(s) for managing inspections?
Are these officials knowledgeable about

- The company's operations?

- Major environmental statutes?
- Right-of-entry guidelines?
- The restrictions on how far an inspection can go (its allowable parameters?)

Does the rest of the company know about this official's designation?
Have you obtained any local.state inspection or right-of entry guidelines?
Have you brought a lawyer into this briefing process?
At the time of inspection:
Have you received prior notice of the inspection?
Before giving or denying consent, have you received the following information from the inspector:

- His/her identification?
- The purpose for which entry is sought?
- A description of the inspection activities?

Have you contacted the lawyer or other designated officials for when inspectors arrive?
Have you asked whether the inspection involves:

- An administrative inspection warrant?
- A criminal search warrant?

If so, have you asked about what people and activities are these warrants restricted to?
Has the inspection involved any notices of violation?
Specify: _____
_____
Has the inspector scheduled any follow-up visits, to determine whether you've corrected the infractions?
Has the inspection involved any seizure or evidence?
Specify: _____
_____
Was this evidence associated with a criminal investigation?
Was it properly/legally gathered (with a criminal search warrant or consent)?
Did you receive a copy of the checklist the RCRA inspector used at your facility?
Were any samples taken at your facility?
If so, did you:

- Get receipts for the samples?
- Receive an equal portion ("split samples")?
- Get a copy of any analyses results derived by the agency from the samples?

GENERATOR CHECKLIST

ID NUMBER
Does the generator have an EPA ID number? (262.12.)
MANIFESTS
Does the generator use a manifest? (262, Subpart B)
If no: Is the generator "conditionally exempt"? (261.5)
Do they indicate this when they ship waste to a TSDF?
If yes: Does the manifest contain all of the required information-including the signed certification Statement at the end of the document? (See page 3 o the February 19, 1991 Advisor for detailed manifest information.)
Does the generator retain copies of manifest? (262.40 (a))
If yes: Did the generator sign and date all manifests?
Did the generator obtain a handwritten signature and date of acceptance from the initial transporter?
Do the returned copies include the RSDF signature and date of acceptance?
Does the generator retain these manfies copies for three years?
WASTE DETERMINATIONS (262.11)

Does the company generate listed hazardous waste(s)? (261, Subpart D)
Does the company generate characteristic wastes, including TCLP wastes? (261.24)
If yes: Does the generator determine characteristics by testing?
…or by applying knowledge of process?
If determined by testing, did the generator use the 40 CFR Part 261, Subpart C test methods (or equivalents)? (The checklist then asks for copies of any equivalent test methods used)
PRETRANSPORT REQUIREMENTS (262, Subpart C)
Does the generator package waste in accordance with 49 CFR Part 173, 178, and 179 (DOT regs)?
Are there any leaking corroding containers?
Is there any evidence of heat generation from the storage of incompatible wastes?
Does the generator follow DOT labeling requirements in accordance with 49 CFR Part 172?
Does the generator mark each package as pecified uner part 172?
Is each container of 110 galloms or less marked with the following label:
Hazardous Waste-Federal Law prohibits improper disposal. If found, conatac the neares policy or public safety authority or the U.S. Environmental Protection Agency.
This label must also contain: Generatory name and address; manifest document no.
Does the generator have placards for its transporters? Accumulation time: are wastes temporarily stored in container before transport (262.34)?
If yes: Is each container clearly dated?
Do the dates inspect the container for leakage or corrosion? Does the generator locate container holding ignitalbe or reacti waste at least 15 meters (50 feet) from the facility's property line?
Does the genrator comply with requirements for personnel training (265.16)?
EMERGENCY RESPONSE PLANS
For large-quantity generators that accumulate wastes:
Prepardness and Prevention Checklist (Part 265, Subpart C)
Is there evidence of fire, explosion, or contamination of the environment?
Is the facility equipped with the following:

- Internal communication or alarm system (easily accessible in case of emergency)?
- Telephone or two-way radio to call emergency response personnel?
- Portable fire extinguishers; fire control, spill control, and decontamination equipment?
- Adequate volume of water for hoses, sprinklers, or water-spry system?

Is there sufficient aisle space to allow unobstructed movement of personnel and equipment?
Has the owner/operator arranged with the local authorities to familiarize them with facility characteristics (e.g., layout, properties of accumulated hazardous wastes; possible evacuation routes)?
In case more than one police/fire department might respond, is there a designated primary authority?
Does the owner/operator have phone numbers of and agreements with state emergency response teams, emergency response contractors, and equipment suppliers?
And are those phone numbers readily available to all personnel?
Has the owner/operator arranged to familiarize local hospitals with the properties of hazardous waste handled and types of injuries that could result from fires, explosions, or release at the facility?
If state or local authorities decline to enter the factory, is this entered in the operating record?
Contingency Plan and Emergency Procedures Checklist (Part 265, Subpart D)
Is a contingency plan maintained at the facility?
If yes: Is it revised SPCC plan?
Does the contingency plan include:

- Arrangements with local emergency response organizations?
- Emergency coordinator's names, phone numbers, and addresses?
- A list of all emergency equipment at the facility and descriptions of equipment?
- An evacuation plan for facility personnel?

Is there an emergency coordinator on site or on call at all times?
(The inspector may also photograph and/ore describe narratively the storage area)

For small-quantity generators that accumulate hazardous waste on-site:
Preparedness and Prevention Checklist (40CFR Part 265.34(d))
(the same as above)
Contingency Plan Requirements (40 CFR Part 262.34(d))
Is there at leas one employee, either on the premises or on call at all times who can act as the emergency coordinator in the event of a spill or accident?
Is the following information posted next to the telephone:

- Name and telephone number of the emergency coordinator?
- Location of fire extinguishers, spill control material, and -if present-fire alarm?
- Telephone number of fire department (unless facility has a direct alarm)?

Are all employees thoroughly familiar with proper waste-handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies?

(40 CFR Part 252.34 (d) also specifies the SQG's responsibility to convey the required information to the National Response Center in the event of a release- and to take other basic emergency response actions)

Recordkeeping and Records (262.40)
Does the generator keep the following reporter for three years:
Manifests and signed copies from TSDFs?
Annual or biennial reports?
Exception reports?
Test results?
(The inspector then records where the records are kept, and who is in charge of keeping them)
Hazardous Waste Exports (262 Subpart E)
Has the generator received from or transported to a foreign source any hazardous waste?
If yes: Has a notice of intent to export" been filed with the regional administrator?
Is this waste manifested and signed by a foreign coassignee?
Has the generator received confirmation of the delivered shipment?

NATIONAL MUTIMEDIA SCREENING INSPECTION
CHECKLIST (AUGUST 1993)

Multimedia inspectors will visit facilities for a quick look around at compliance activities. This inspection is designed as a screen -to look at all aspects of environmental impacts at once, and quickly draw a conclusion about whether the site has nay potential problems. The government has designed it to make inspections and inspectors more efficient; to examine a facility with one inspector rather than deluging them with several inspectors in a piecemeal approach.
In the past, "single-media" inspectors suggested to managers that they only have to think of their facility in terms of single laws-like RCRA or the Clean Air Act. "If the inspector doesn't mention it, then it must not matter." Multimedia evaluations reflect the necessity to take an integrated approach to managing all of a facility's environmental impacts.
As you can see, the following checklist is a "quick and dirty" scan designed to determine which regulations a facility may fall under. After the facility has been screened, it may be subject to more probing questions later.
RCRA
Observations
Does the facility generate anything that looks like waste material that might contain hazardous constituents?
Is so, describe what the facility says regarding the RCRA regulatory status of the waste material and their rational for such determination. (E.g., Have they made a RCRA waste identification and what was that determination? Have they determined the waste to be exempt from regulation and why?)
Describe the process that generates that waste material.
Do you see any containers of hazardous waste, land disposal units, alagoons, treatments units?
Approximately how many?
Were any of the units that contain or handle hazardous wastes (containers, berms, dikes, tanks, piping, impoundments, etc.) in poor condition, unmarked, open, leaking, cracked, corroded, or in a condition that

would allow the release of potential release of hazardous wastes?
If yes, describe unit(s).
Any actual or evidence of past releases observed?
If so, describe waste (i.e., liquid, sludge, etc.) unit(s) and location.
Does the facility operate a boiler or industrial furnace which burns hazardous waste?
Was there any incineration of hazardous waste on site?
Was there any evidence of spills, leaks, or discharges of hazardous wastes?
If so, provide location and description.
Interview question/records review
If the facility is a generator of hazardous waste, was there a notification of hazardous waste activity?
What is the quantity (kilograms per month) or hazardous wastes produced?
How are they produced?
What is the EPA identification number?
What was the basis (i.e. , test knowledge of process and waste) for determining if the facility did or did not produce or handle hazardous waste?
Who made the determination?
UNDERGROUND STORAGE TANKS (USTS)
Observations
Is there any evidence of leaks, spills, broken piping, broken fill/vent lines, or leaking pumps, joints, or valves? Provide location and description.
Interview questions/records review
If the tanks are for virgin petrolem or chemicals (not wastes) are athey registed with the state?
What is the date of registration?
Date of tank's installaiton?
SPILL PREVENTION CONTROL AND CONTERMEASURE (SPCC) PLANS
Obsrvations
Does the facility have the capacity to store oil either in abouve or belowground tanks?
How many gallons?
Does any tank have a capacity of more than 660 gallons in a single aboveground tank or does the faciltiy have a capacity of more than 1,320 gallons in a numer of aboveground tanks or a capacity of more than 42,000 gallons below the ground?
What type of secondary containment is used at the facility?
Were there any deficiencies in the secondary containment (cracks;dikes left open)?
Is it adequate to contain the entire contents of the larges tank?
Interview qustions/records review
Does the faciltiy have a certified (signed by a professional engineer) SPCC plan?
When was it last updated?
Has there been any major changes to oil storage at the facility since the last modification of the plan?
WETLANDS
Obsrvations
Are there any wet areas near the facility with weland-type vegetation (cattails, rushes, sedtes) that have been disturbed by waste disposal, ditching, or filling?
Interview questons/records review
Does the facility have a Clean Water Act Section 404 permit or any state or local permit authorizaton they fill?
FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTIICIDE ACT (FIFRA)
Observations
Does the facility produce pesticides?
Is the facility applying pesticides?
Where are the pesticides stored?
Interview questions/records review
If the facility produces pesticides, what is the establishment's registration number?
If the facility is applying pesticides, what is the registration number of the pesticide
CLEAN AIR ACT (CAA)
OBSERVATIONS
Is there any asbestos on site?
Is the facility undergoing or has the facility undergone any renovations or demolitions during the last 18 months which involve the removal or disturbance o asbestos-containing materials?

Approximately how much asbestos (square feet or linear feet) was removed?
Does the facility use any paints or organic solvents?
What, if any, type of air pollution control is used?
Was it operating?
Were there any odors?
What process was the source of the odors?
Describe the odors.
Were there any visible (opaque smoke) emissions?
What process was the source?
Were there any fugitive (not from a stack) emissions?
Was the air pollution control equipment, if any, operating?
Describe source.
Interview questions/record reviews
If asbestos was removed, was notification provided to the state and EPA?
If the facility has coating or printing operations are they waterbased or organic-solvent based?
Does the facility handle/emit any of the National Emission Standards for Hazardous Air Pollutants (NESHAP) chemicals other than asbestos
(mercury, beryllium, vinyl chloride, benzene, arsenic, radionuclides)?
Describe process.
Has the facility added any new or expanded existing processes in the last two years?
Was it permitted by EPA or the state?
TOXIC SUBSTANCES CONTROL ACT (TSCA); POLYCHLORINATED BIPHENYLS (PCBS)
Observations
Did the facility have or does it have any PCB electrical equipment?
What equipment (type and quantity) is on site?
Does the facility have a PCB equipment storage area for disposal or reuse?
Describe the storage area (i.e., concrete pad, walls, roof, curbs).
Are there nay labels/markings on the PCB equipment?
Is there any leaking PCB electrical equipment?
Describe.
Does the facility have any hydraulic systems?
Any leaking?
Interview questions/records review
If the facility has PCB electrical equipment, was it tested?
What were the test results?
If the facility has any hydraulic systems, when were they tested for PCBs?
What were the test results?
CLEAN WATER ACT-NATIONAL POLLUTATN DESCHARGE ELIMINATION SYSTEM (NPDES)
Observations
Does the facility use water in its manufacturing process?
Dpes the facility discharge to a stream, municipal sewer, or use subsurface disposal?
What process(es) generate wastewater?
Is wastewater treated?
Is the effluent clear?
Does the treatment plant appear to be maintained (look for rust, dry basins, abandoned equipment, etc.)?
Where does the stormwater drain to?
Where do the floor darns discharge?
Interview questions/records review
How is the treatment plant's sludge disposed of? How is it tested? r r
EMERGENCY PLANNING AND COMMUNITYRIGHT-TO-KNOW-ACT (EPCRA)
Interview questions/records review
Were there any chemical releases in excess of the Superfund reportable quantities
(these RQs are specified under 40 CFR part 302.4)?
Who was provided the notification?
Waste it oral or written?
Does the facility manufacture, process, or use any toxic chemicals in a quantity greater than 10,000 lbs/year?

Identify them.
Are any of them Section 313 chemicals (listed under 40 CFR Part 372, Subpart D)?
If yes, has the facility submitted the toxic chemical release from (EPA form R)?
Does the facility have the materials Safety Data Sheets on site?
Were they submitted to the State Emergency Response Commission (SERC) and/or the Local Emergency Planning Committee (LEPC)?
Has the facility submitted the Emergency and Hazardous Chemical Inventory forms to the LEPC and SERC?
SAFE DRINKING WATER ACT (SDWA)-UNDERGROUND INJECTION CONTROL
Observations
Are there any discharges ptjer tjam sanitary waste (i.e., industrial wastes) into or onto (including drain fields) the ground?
Is an on-site septic disposal system used?
Describe the discharges and disposal system.
Interview questions/records review
Does the facility have or has it had any wells (dug, drilled, or driven), dry wells, leachfields, or septic systems?
Did they receive commercial or industrial waste (liquid and/or solid), cooling water, or drainage from roof drains, or parking lots?
If yes, give a description.
Does the facility have a permit?
What is the current status of wells (active, abandoned, under construction, repairs)?
If the wells are inactive, what was the date they were last used?
SDWA-PUBLIC WATER SUPPLY
Interview questions/record reviews
What is the facility's source of drinking water?
Does the facility have a private well?
How many people does it serve?
Is the water sampled and analyzed for contaminants?
Are the results reported to the state or EPA? r
ENVIRONEMTNAL ASSESSMENT
Is there any evidence of environmental impacts that haven't been addressed?
Possible examples include:

- Additional evidence of spills, leaks
- Vegetation damage in the surrounding area
- Odors in the surrounding neighborhood
- Neighborhood covered with "dusts"
- Poor water quality in streams near the facility

Were there situations of possible excessive occupational exposures that should be referred to OSHA?
HAZWOPER TRAINING CHECKLIST
Do you have any of the following types of workers?

- Federal Superfund site cleanup workers
- RCRA Facility cleanup workers

- Hazardous waste workers at treatments storage, and disposal facilities (TSDFs)-general laborers, equipment operators, their supervisors, and on-site hazmat emergency teams laborers, equipment operators, their supervisors, and on-site hazmat emergency teams
- State Superfund site workers
- Hazmat emergency teams (including industrial fire brigades, local firefighters, local EMTs; as well as post emergency response workers
- Low-hazard or occasional workers at hazardous waste sites
- Any other workers that ay be exposed to an explosion or fire threat, or a spilled-chemical

concentration in excess of an occupational standard

Have these workers been trained in at least the following areas?

- Specifically safety, health, and other hazards (including fire and explosion threats; chemical exposure; heat stroke, etc.) that are present at the site
- Proper use of personal protective equipment
- Work practices by which workers can minimize risks
- Safe use of engineering controls and equipment at the site
- Medical surveillance requirements, including recognition of symptoms and signs that may indicate a chemical over exposure

Have they received at the last the following mandated amount to training?

- Site Cleanup workers: 40 hours off-site, three days on-the-job, eight-hour annual refresher courses
- Supervisors at waste sites: Same as workers, plus eight hours "specialized training" in managing health-and-safety aspects of site
- Occasional and lw-hazard workers at haxwaste sites: 24 hours off-site, one day on -the-job, eight-hours refresher courses
- New Workers at RCRA TSDFs: 24 hours of-site training with eight-hour refresher courses
- Current workers at TSDFs: Eight-hour refresher courses
- Emergency responders at TSDFs: Unspecified amount("…as necessary to develop competency to protect themselves and other"-OSHA standard)
- Hazmat emergency team members: AT least 24 hours off-site training for hazardous-materials technicians, specialists, and on-scene incident commanders; at least eight hours off-site for nay other "first responder"
- Updated or amended this plan whenever this is required?
- Made sure that all appropropriate local agencies have received copies of this updated plan?
- Trained coordinators, alternates, responders, and anyone who could be present at (and/or affected by) an accident, about protective equipment, spill control, hazard identifications, basic response to medical problems, and other related areas?
- Consulted with your waste transporter to find out whether they have additional capabilities that could be of use in the contingency plan?

In the aftermath of an accident, do you understand your responsibility to:

- Adequately treat, store, or dispose of any recovered hazardous wastes?
- Segragate any incompatible wastes from the recoverd wastes during cleanup operations?
- Get all emergency equipment once again ready for use?
- Notify EPA and appropriate local and state agencies that these measures have been initiated prior to the resumption of operations?
- Record the chemical accident in your operating record?
- Submit a written reparot to EPA about the accident?
- Examine the cintingency plan for flaws, and consider improvements or amendments?
- If yes, are tank VOC emission withing legal limits?

Does the AST comply with other applicable NAAQS restrictions, governing:

- Nitrogen
- Sulfur dioxide
- Lead?
- Carbon monoxide?
- Particulates?

Do any New Source Review or Prevention of Significant Deterioration standards apply to this tank?

- If yes, are AST emissions (e.g., VOCs, Nox within permitted limits?
- Does the AST adequately comply with applicable state air-toxics laws, (if any)?
- RCRA: (See part of checklis that applies to hazardous waste tanks: Parts 264, 265; Subpart J)
- SARA Title III:

Are you regulated under SARA Section 313?

- If yes, have you properly compiled for annual reporting all applicable tank releases (40 CFR Part 372)?
- If the tank stores any "extremely hazardous substances" (EHS) or CERCLA hazardous substances:
- Have you made proper notifications regarding threshold planning information (40 CFR Part 355.30)?
- Have you planned for potential relase-reporting obligations (Parts 302 and 355)?
- If the tank stores certain thresholds of any EHS or OSHA hazardous substances:
- Have you properly complied with Tier I or II reporting (Part 370)?
- Is the AST associated with the proper industry standards for consturction, performance, and maintenance (e.g. American Petroleum Institute Standards)?

II. GENERATION, STORAGE STREATMENT, DISPOSAL AND TRANSPORT ACTIVITIES

A. EPA Identification Numbers:

Y N 1. Has the generator, transporter or TSD received an EPA ID No., before treating, storing, disposing, transporting, or offering for transport H.W. (262.12a, 263.11a, 265.11)?

Y N 2. Has the facility obtained an EPA ID No. by applying to EPA using EOA form 8700-12 Notification of Hazardous Waste Activity (262.12b, 263.11b, 265.11)?

Y N 3. Does the facility ensure that no H.W. is offered to transporter or TSD facilities that have not received an EPA ID No (262.12c)

Y N 4. Has the facility indicated on form 8700-12 each separate hazardous waste activity (generation, transport, or TSD)?

Y N 5. Is information on form 8700-12 current (company name, waste numbers, etc.)?

B. ADEQ Registration and Fees

Y N 1. Has the facility registered annually with the Department (A.R.S. 49-929.AZ)?
Y N 2. Has the facility submitted an annual fee (A.R.S. 49-929.B)? TSDs: $1,500 plus $2 per ton; GQGs: $300; SQGs: $100; CEQGs: no fee; Resource Recovery facilities: $1,500 plus $2 per ton, $10,000 max per site, $25,000 max per entity.

B. Storage Treatment and Disposal

Y N 1. Is the facility storing, treating, or disposing of hazardous waste? * (See 260.10, 261, 262.34).
Y N 2. Has the facility applied for and obtained a permit, been accorded interim status, or been allowed under 270.1c 2 & 3 (see 265.1c & 264-.1g) before a storing, treating, or disposing hazardous waste (R18-8-270.B)
Y N 3. Has the TSD facility qualified for interim status (270.70)

a. Existing since:
b. Notified?Date:

c. Submitted part A application (270.10)? Date:

Y N 4. Has the TSD facility added any of the following not previously identified in a Part A application:

a. New hazardous wastes
b. Increased design capacity
c. Changes in process
d. Changes in owner/operator?

Y N 5. Has the TSD facility filed revised Part A applications and obtained Department approval (b,c and d only) for each of any changes made as described above (270.72)?
Y N 6. Have changes been made in TSD facility since 11/19/80, that amount to reconstruction (270.72 e)?

B. Generator Requirements:

(1000 kg/month or more)

Y N 1. Does the generator comply with the requirements of Subpart I in 40 CFR Par 265 for the use and management of containers (262.34a.1)?except 265.197 © & 265.200. (262.34 a.1)?

Y N 3.a Are containers marked with the start of accumulation date (262.34a.2)?

3.b. Is the date clear and visible for inspection (262.34a.2)?

Y N 4. Does the generator fill out a written log iwht each weekly inspection of container storage areas and daily inspection of tanks? Including inspectors name, date, signature and remarks/corrections (R18-8-262.D)?

Y N 5. Is each container and tank marked with the owrkds "Hazardous Waste" (262.34a.3)?

Y N 6. Does the generator comply with the requirements of Subpart C in 40 CFR Part 265 for preparedness and prevention (262.34a.4)?

Y N 7. Does the generator comply with the requirements of Subpart D in 40 CFR part 265 for contingency plan and emergency procedures (262.34a.4)?

Y N 8. Does the generator comply with the requirements of 265.16 for personnel training (262.34a.4)?

Y N 9. Does the generator accumulate H.W. for no longer than 90 days, etc. (262.34b)?

Y N 10. Does the generator comply with the requirements for using Manifests (Part 262 Subpart B, R18-8-262.F)?

C. Conditionally Exempt Small Quantity Generators Comments (Very small quantity generators, up to 100 kg/month)

Y N 1. Does the CESQG limit total accumulation to:

o Less than 1000 kilograms (262.5 9g)(2)?
o 1 kilogram total acute Hazardous Waste (261.5(f)(2)?
o 100 kilograms total acute Hazardous Waste debris (261.5(f)(2)?

Y N 2. Does the CESQG limit it's generation rate to no more than:

- o 100 kg/month - nonacute H.W. (261.5 (a))?
- o 1 kg/month - acute H.W. (261.5(e)(1))?
- o 100 kg/month - acute H.W. debris (261.5(e))?

Y N 3. Does the CSEQG have approval from the landfill accepting it's waste (R18-8-261.E,F)?
Y N 4. Does the landfill or other facility accepted CESQG waste have a permit or approval from the State (R18-8-262.E,F)?
Y N 5. Does the mixture of CESQG hazardous waste with other waste result in the mixture exhibiting a characteristic of hazardous waste (261.5(h))?
E. Small Quantitity Generators
(100-1000 kg/month, not conditionally exempt) Comments
Y N 1. Does the SQG limit generation rate to less than 1000 kg a month (262.34(d))?
Y N 2. Does the SQG limit total accumulation to 6000 kg (262.34(d)(I))?
Y N 3. Does the SQG limit total accumulation time for any one container to:

- -180 days if less than 200 miles to TSD (262.34(d))?
- -270 days if over 200 miles to TSD (262.34(e))?

Y N 4. Is starting accumulation date clearly marked & visible on each container (262.34(d)(4)?
Y N 5. Are containers and tanks marked "Hazardous Waste" (262.34(d)(4)?
Y N 6. Does the SQG comply with the requirements for using manifests and sending one copy of each manifest, completed and signed by generator transporters and TSD, to ADEQ within 45 days of the end of the month of shipment; or Exception Re[rpt (Part 262 Subpart B, R18-8-262.F)?
Y N 7. Does the generator comply with the requirements of Subpart C in 40 CFR Part 265 for preparedness and prevention (262.34a.4)?
Y N 8. Does the SQG have an emergency coordinator (262.34)(d)(5)(I)
Y N 9 Does the SQG have the following posted next to the telephone (262.34(d)(5)(iv)

- -Name and telephone number of EC
- -Location of fire extinguishers, spill control material and fire alarm?
- -Telephone number of Fire Department?

Y N 10. Are SQG employees thoroughly familiar with proper Waste handling and emergency and procedures (262.34) (d) (5) (iii))?
Y N 11. Does the SQG respond to emergencies, fires, spills and releases (262.34(d)(5)(iv)?
Y N 12. Does the SQG call the NRC (800/424-8802) or ADEQ (257-2330) within 23 hours of an incident threatening off-site hum health, or that has reached any surface water (262.34(d)(5)(iv)(c)?
Y N 13. Does the SAG comply with requirements for container in 25d Subpart I except 265.176 (262.34)(d)(2)
Y N 14. Does the SQG comply with requirements for tanks in 265.201 (262.34)(d)(3)?
F. Satellite Accumulation
Y N 1. Are satellite areas at or near the point of generation where wastes initially accumulate (262.34)©
Y N 2. Are satellite areas under the direct control of the person operating the generation process (262.34©
Y N 3. Are containers maintained in accordance with Part 265 Subpart I for container (262.34©(1)(I)?
Y N 4. Are containers marked with the word "Hazardous Waste" or other words identifying their contents (262,34©(1)(I)?
Y N 5. Are quantities limited to no more than 55 gallons or 1 quart acute H.W. (262.34©(1)?
Y N 6. Are excess amounts treated as SQG or Gen amounts within 3 days, and dated with the date the excess began (262.34©(2)?

II. ENVIRONMENTAL/HUMAN HEALTH ASSESSMENT

A. Use the following to describe:

- -Surrounding land uses (schools, residences, industrial, agriculture, etc.).
- -On-site and off-site drainage patterns, water courses, and surface waters.
- -Local soil types, ground water depth & area wells.
- -Any health effects or symptoms observed or complained of, dead animals, plants, etc.
- -Any imminent or actual safety hazards, spills, discharges, releases to air, soil and water.

8. Hazardous Waste Determination Method

(R18-8-262.11) Y N Has the generator * examined each of its solid wastes to determine if any are hazardous waste (H.W.) (262.11):

Has the generator:

- Y N a. Determined if waste is excluded from regulation in 261.4 (262.11a)?
- Y N b. Determine if waste is listed as a H.W. in 261 Subpart D (262.11b)?
- Y N c. Determined is waste is identified in Part 261 Subpart C by either:
- Y N i. Tested the waste (262.11c.1)?
- Y N ii. Applied knowledge of the hazard characteristics of the waste in light of the materials or processes used (262.11c.2)?
- Y N 9. Has the generator documented the waste determination in writing and retained records for three years (262.40c)?

Note R18-8-262.A, 262.11 and 261.5 (g)(I) require the genrator, small quantity generator, and very small quantity genrator to examine all of its solid wastes.
The ADEQ UST Compliance Unit is the implementation agency for the federal Underground Storage Tank regulations. Consult Chapter 8 of this Handbook to determine if you must report other releases, suspected releases, spills or overfills at underground storage tanks.
Releases from Underground Storage Tanks

A. Summary of Reporting Procedures

1. Notify by telephone or Writing (within 24 hours)
   a. Arizona Department of Environmental Quality (for all releases) UST Compliance Unit (602) 257-6984
   b. Any affected local emergency planning committee. See Arizona Appendix 5, for the addresses and telephone
   numbers of the local committees in each county.

1. Written Report (within 14 days)

Arizona DEQ
UST Compliance Unit
2005 North Central Ave.
P.O. Box 600
Phoenix, AZ 85001-0600

A. Information to Be Reported

1. Initial Notification

Arizona dos not specify what information should be included in the initial notification of a release from a UST.

a. Any affected local emergency planning committee. Se Arizona Appendix 5, for the addresses and telephone numbers of the lcoat committees in each county.

Natioanl Response Center
(800) 424-8802

Notify in Writing (within 30 days)
Arizona Emergency Response Commission
5636 E. McDowell Road
Phoenix, AZ 85008

Local community emergency coordinator (see Arizona Appendix 5)
_____
_____
Information Notification
Telephone Notification.

a. Specific location of the release;
b. Chemical name or identity of substances released and description of container from which release occurred;
c. Estimate of quantity of substances released to the environment;
d. Time and duration of release;
e. Medium into which release occurred:
f. Any known or anticipated acute or chronic health risks associated with the release and, I known, advice regarding medical attention necessary for exposed individuals;
g. Proper precautions to take as a result of the release ; and
h. Name and telephone number of person to be contacted for additional information.

2. Written Notification

a. Actions taken to respond to and contain release;
b. Any known or anticipated acute or chronic health risks associated with the release;
c. If appropriate, advice regarding necessary medical attention; and "Release" is defined as any spilling, leaking, pumping, pouring, emptying, discharging, injection, escaping, leaching, dumping or disposing into the environment. A release does not include workplace exposures, engine exhaust emissions, release resulting from the operation of a "production or utilization facility" as defined in the Atomic Energy Act of 1954 or applications of fertilizer.

2. Was the material a "hazardous substance"?

A "Hazardous substance" is defined as all substances designated as such pursuant to the following:

1. 311(b)(2)(a) and 301 (a) of the Clean Water Act;
2. 102 of CERCLA;
3. 112 of the Federal Clean Air Act;
4. 7 of the Federal Toxic Substances Control Act; or
5. All hazardous wastes or substances identified or listed by the Arizona Department of Environmental Quality.

2. Does this release require reporting?

   A release must be reported if:

a. The quantity of the release is greater than or equal to reportable quantities established under 103 CERCLA (42 U.S.C 9603) (see Chapter 2 of this Handbook); or
b. The release is in a quantity equal to or grater than reportable quantities set by the Department of Environmental Quality; and
c. The release was no reported to the National Response Center before August 13, 1986.

II. Release of Extremely Hazardous Substances

A. Summary of Reporting Procedures

1. Notify by Telephone (immediately)

- Arizona Department of Environmental Quality

  Emergency Spill Response Unit
  (602) 257-2330 (24 hour)

- For transportation related spills, notify also:

  Arizona Department of Public Safety
  (602) 223-2212

- If no response at the above numbers, contact the Arizona Fire Department Hazardous Materials

  Divisions:

  Glendale 911
  Mesa (602) 644-211
  Phoenix 911
  Rural Metro (602) 994-6320
  Tempe 911
  Tucson (602) 791-4516

- Any affected local emergency planning committee. Se Arizona Appendix 5, for the addresses and

  telephone numbers of the local committees in each county.

1. Notify in Writing

A. No follow-up written notifications is expressly required under the applicable regulations.
B. Information to Be Reported

1. Release location and cause
2. Substance identification and container type
3. Quantity estimate
4. Tine and duration of release
5. Response and control efforts

6. Responsible party/contact - name, address and telephone.

A. Step-by-Step Guide to Determining When Notification is Required

The Arizona Hazardous Substances Spill Response Law mandates that any person who is the owner or operator of a facility shall immediately notify the department of any reportable release of a hazardous substance. See Ariz. Statute 49-284 (Arizona Appendix 2)

1. Has there been a "release"?

ARIZONA

The notification and reporting requirements listed in this Chapter are imposed by the laws and regulations of the State of Arizona. You should also whether any reporting is required under applicable federal law, including the Clean Air Act. Also, review all the facility's permits, including RCRA and NPDES permits, for any additional reporting requirements.
The Arizona Director of Environmental Quality and the board of supervisors from each county is authorized to regulate air quality in the state by setting air emission standards, issuing permits, and requiring air contamination source reporting. Se Ariz. Statutes 49-432 and 49-487, attached hereto as Arizona Appendix 1. Discharge notification requirements for hazardous substances released to land, air or water of the state are discussed in detail below and attached hereto as Arizona Appendix 2. Under Arizona's Emergency Planning and Community Right-toKnow Act, a reportable release as an extremely hazardous substances must be immediately reported to the Department of environmental Quality's emergency response unit and to the community emergency coordinator. See Ariz. Statutes 26.348 (Arizona Appendix 3) Underground storage tank releases must be reported by the owner or operator of the tank. Consult the applicable Arizona Statutes, attached hereto as Arizona Appendix 4.

I. Release of Hazardous Substances to the Environment

A. Summary of Reporting Procedures

1. Notify by telephone

a. Arizona Department of Environmental Quality
Emergency Spill Response Unit
(602) 257-2330 (24 hour)

PRETREATMENT PROGRAM COORDINATION CHECKLIST
SECTION 1: LEGAL AUTHORITY AND CONTROL MECHANISM
INSTRUCTIONS: Complete during on-site audit interview.
A. Legal Authority
1) Does the SUO include the following Federal regulatory amendments contained in 40 CFR 403 promulgated on 10/17/88 & 7/24/90:
YES NO SUO Code Citation
a. Authority to assess penalties of at least $1,000 per day. (40 CFR 403.8(f)(1)(vi)(A)]
b. Authority to require SIU's to notify <CITY> of changes in production (for production-based stds) and volume/character of pollutants
in discharge.[40 CFR 403.6(c) and 403.12(j)]
c. Authority to require SIU's to resample within 30 days after becoming aware of a violation in self-monitoring results.
[40 CFR 403.12(g)(2)]
d. Authority to require SIU's to meet new signatory requirement in 40 CFR 403.12(l).
e. Authority to require appropriate reporting from non-categorical SIU's. [40 CFR 403.12(h)]
f. Prohibits wastestreams with a closed-cup flash-point less than 140o F. [40 CFR 403.5 (b) (1)]

g. Prohibits petroleum oil, non-biodegradable cutting oil, products of mineral oil origin in amounts causing pass through or
interference. [40 CFR 403.5 (b) (6)]
h. Prohibits pollutants causing toxic gases, vapors, and fumes. [40 CFR 403.5 (b) (7)]
i. Prohibits receipt of trucked or hauled waste except at designated points. [40 CFR 403.5 (b)(8)]
2) Does <CITY> have the requisite legal authorities per 40 CFR 403.8 (f)(1) to:
YES NO SUO Code Citation
a. Deny or condition new or increased contributions
b. Apply or enforce pretreatment standards
c. Control each SIU through permit,contract. etc.
d. Require development of SIU compliance schedules
e. Require submission of SIU reports
f. Conduct SIU inspections and sampling
g. Obtain remedies for noncompliance
h. Halt or prevent discharges
i. Comply with confidentiality requirements
3) Has <CITY> experienced any practical difficulty implementing and enforcing the provisions of its SUO or other legal authorities?
YES NO
If yes, explain:
4) Are local limitations enforced?
YES NO
If no, explain:
B. Control Mechanism
1) Is <CITY> implementing the approved control mechanism (e.g., SIU discharge permit system, contracts, etc)?
YES NO
Explain:
2) Do all of the required SIU's have current (unexpired) control documents?
YES NO
Explain:
a. Give number control documents currently issued:
b. Give number required:
c. Give number currently expired:
3) Do the SIU permits/control documents contain the following provisions?
a. Specific provisions
YES NO
Document Page
i) Authorized discharge
ii) Effective date*
iii) Expiration date*
iv) Discharge limits*
v) Monitoring requirements*
vi) Reporting requirements*
vii) Sampling protocol / location*
viii) Compliance schedule*
b. Standard provisions
YES NO
Document Page
i) Proper sludge disposal
ii) Toxic organic mgmt plan
iii) Dilution prohibition
iv) Bypass prohibition
v) O & M requirements
vi) Right of entry
vii) Records retention*
viii) Non-transferability*

ix) Modification authority
x) Revocation authority
xi) Signatory requirements
xii) Duty to reapply
xiii) Penalty provision*
xiv) Notification requirements*
* [40 CFR 403.8 (f) (1) (iii) (A-E)]
4) Do any UST, CERCLA, RCRA corrective action sites and/or other contaminated ground water sites discharge to the POTW?
YES NO
How are control mechanisms (specifically limits) developed for these facilities?
5) Does <CITY> accept any waste by truck, rail, or dedicated pipe?
YES NO
N/A
a. Is any of the waste hazardous as defined by RCRA?
YES NO N/A
b. Does <CITY> have a control mechanism for regulating IU's whose wastes are trucked to the POTW?
YES NO N/A
c. What limits (categorical, local, other) does <CITY> apply to wastes that are hauled to the POTW (directly to the treatment plant or within the collection system, including contributing jurisdictions)? [40 CFR 403.1(b)(1)] Explain or include copy of limits.
d. Describe <CITY>'s program to control hauled wastes including, designated discharge point (e.g., number of points, control/security procedures). [40 CFR 403.5(b)(8)]
6) Has <CITY> implemented an adequate control mechanism to regulate:
YES NO N/A
a. Categorical IU?
b. Noncategorical SIU?
c. Waste haulers?
PRETREATMENT PROGRAM COORDINATION CHECKLIST
SECTION 2: APPLICATION OF PRETREATMENT STANDARDS
INSTRUCTIONS: Complete during on-site audit interview.
A. Industrial User Classification
1) Does <CITY> have an IWS to identify new IU's or changes in wastewater discharges?
YES NO
2) How often does <CITY> update its IWS?
Methods used to update survey:
Frequency
a. Review of newspaper/phone book
b. Review of plumbing/building permits
c. Permit reapplication requirements
d. On-site inspections
e. Review of water billing records
f. Other (describe)
3) Does <CITY> have written procedures for implementing and enforcing the IWS?
YES NO
If yes, explain (or attach copy of procedures):
4) List the current number of SIU's for each of the following types:
a. # Categorical SIU's
b. # Significant noncategorical industries
c. # Other regulated noncategorical SIU's
d. # Other nondomestic users
TOTAL:
5) Is <CITY>'s definition of "Significant" IU the same as contained in 40 CFR 403.3(t)?
YES NO

CODE CITATION
If no, what are the differences:
6) Briefly how are SIU's identified and categorized?
7) What was the date of;
a. The first IWS:
b. The most recent IWS:
8) Have any new SIU's been added since the most recent IWS which are capable of causing interference or pass through or contribute significantly to the treatment plant's toxic loading?
YES NO
If yes, specify:
9) Have any new SIU's been added since the original IWS which are located in outlying jurisdictions where <CITY> has no jurisdictional agreements or SIU contracts?
YES NO
If yes, specify:
B. Standards and Requirements for Significant Industrial Users
1) Has <CITY> notified its SIU's of the pretreatment standards and requirements they must meet?
YES NO
Explain:
2) Does <CITY> compare local limits against federal categorical standards and apply the most stringent standards to categorical IU's?
YES NO
Explain:
3) For industries with combined wastestreams, is the combined wastestream formula being correctly applied?
YES NO N/A
Was this verified by file review?
YES NO
4) For SIU's subject to production-based standards, do limitations in control documents incorporate them properly?
YES NO N/A
Was this verified by file review?
YES NO N/A
5) Are all applicable local, State, and Federal standards included in control documents issued to SIU's?
YES NO N/A
Was this verified by file review?
YES NO N/A
6) Are TTO standards or alternatives (solvent management plans or oil & grease monitoring) being implemented for SIU's subject to TTO limitations?
YES NO N/A
7) Has <CITY> notified all SIU's of RCRA obligations?
YES NO
8) Are all applicable categorical standards and local limits applied to SIU's whose wastes are trucked in to the POTW?
YES NO N/A
9) Are pretreatment standards (local limits and categorical standards) being properly applied to all industrial users, including:
YES NO
a. Correct categorization of industries
b. Application of more stringent standard (local limits vs.categorical standards)
c. Designation of proper sampling location(s)
d. Application of production based standards
e. Use of the combined wastestream formula
f. Sample type and frequency
g. Use of an effective control mechanism [40 CFR (403.8(f)(1)(iii)]
h. Other
RETREATMENT PROGRAM COORDINATION CHECKLIST
SECTION 3: COMPLIANCE MONITORING

INSTRUCTIONS: Complete during on-site audit interview.
A. Inspection and Monitoring
1) What is the current frequency (attach schedule, if available) for:
times per year for each SIU
Categorical
Significant
Non-categorical
a. <CITY>'s sampling of SIU's
b. <CITY>'s inspection of SIU's
c. SIU self-monitoring
d. SIU reporting
2) Are composite samples used to evaluate compliance with categorical standards when appropriate?
YES NO
3) Does <CITY> sample for all categorical and local limit pollutants?
YES NO
Explain:
4) Does <CITY> split samples with the SIU, if requested by the SIU?
YES NO
Explain:
5) Does <CITY> request sample splits of SIU self-monitoring samples, if they are necessary in order to verify SIU self-monitoring results?
YES NO
Explain:
6) Are chain-of-custody procedures employed? (attach copy of chain-of-custody form, if available)
YES NO
7) Do all sampling and analytical procedures conform to EPA methodologies contained in 40 CFR 136?
YES NO
8) Indicate where the following pollutant analyses are performed (e.g., in-house lab, contract lab, etc) and method used (e.g., AA, GC/MS, wet chemistry, etc.):
a. Metals
b. Cyanide
c. Organics
d. Other (Specify)
9) Does <CITY> use a laboratory licensed by ADHS for all parameters analyzed?
YES NO
10) Does <CITY> implement a QA/QC program:
YES NO
a. For sampling?
b. For analysis?
11) How much time normally elapses on average between sample collection and obtaining analytical results?
12) Is the CJ prepared to take samples on short notice (e.g., are vehicles, personnel, preservatives, etc. readily available)?
YES NO
Briefly describe any deficiencies in demand monitoring capabilities:
13) Are sampling locations, techniques, preservatives, etc., clearly detailed for sampling personnel before they take a sample?
YES NO
Briefly describe any deficiencies in the ability to perform routine compliance monitoring.
14) Do <CITY> inspections [40 CFR 403.8(f)(2)(v)&(vi)] of SIU's consist of:
YES NO
a. Inspection of manufacturing facility
b. Inspection of chemical storage areas
c. Evaluation of hazardous waste generation
d. Inspection of spill prevention and control procedures
e. Inspection of pretreatment facilities
f. Inspection of SIU sampling procedures
g. Inspection of lab procedures

h. Inspection of monitoring records
15) Have any SIU's notified <CITY> of a hazardous waste discharge?
[40 CFR 403.12 (p)]
YES NO N/A
If yes, when?
What was the nature of the discharge?
16) How and when does <CITY> evaluate / reevaluate SIU's for the need for a SCP?
17) How many SIU's were not evaluated for the need to develop a SCP in the last 2 years?
Explain:
B. SIU Self-Monitoring and Reporting
1) Are categorical IU's required to sample for all pollutants regulated in the categorical standards?
YES NO
2) Does <CITY> routinely review the periodic SIU self-monitoring reports and compare the results to the applicable pretreatment standards?
YES NO
3) During the past year have the following reports been received from all categorical IU's for which the due date has passed?
YES NO N/A
Number Received / Number Required
a. BMRs
b. Compliance Schedule Milestone Reports
c. 90-Day Final Compliance Reports
d. Periodic Self-Monitoring Reports
4) Are SIU's required to report spills, slug discharges, etc., to <CITY>?
YES NO
5) Does <CITY> require each SIU to submit all compliance sampling data?
[40 CFR 403.12 (e) & 403.12 (g)(5)]
YES NO
PRETREATMENT PROGRAM COORDINATION CHECKLIST
SECTION 4: ENFORCEMENT
INSTRUCTIONS: Complete during on-site audit interview.
1) What is <CITY>'s definition of SNC?
Is this in the SUO?
YES NO
2) What is the total number of SIU's:
3) What is the number of SIU's that are currently in SNC:
Number of SIU's in SNC
a. With categorical standards
b. With local limits
c. With self-monitoring requirements
d. With reporting requirements
e. How many of the SIU's in SNC:
i) Were not inspected during the past 12 months?
ii) Were not sampled during the past 12 months?
Explain:
4) Does <CITY> have an ERP?
YES NO
Explain:
5) Has the ERP been approved by the EPA? (Attach copy)
YES NO
6) Indicate whether the following types of compliance/enforcement actions have been used by <CITY> during the past 12 months:
ACTION
YES NO
NUMBER
a. Verbal warning
b. Written notice or letter of violation

c. Issue compliance schedule
d. Revoke permit
e. Consent decree
f. Civil penalties
g. Criminal penalties (fines/imprisonment)
h. Termination of service
i. Injunction relief
j. Other (specify)
7) Has <CITY> used any unusual enforcement techniques that are effective which other jurisdictions could benefit by knowing about?
YES NO
If yes, briefly describe:
8) Does <CITY> require the development of compliance schedules when installation of pretreatment facilities or additional O&M is necessary for an SIU to achieve compliance with applicable pretreatment standards?
YES NO
Explain:
9) How many SIU's are currently on compliance schedules?
Have any of these been allowed more than 3 years from the effective date of a categorical standard or local limit to achieve compliance?
YES NO
If yes, provide details:
10) Have all New Source Categorical IU's been in full compliance from the first day of discharge?
YES NO
If no explain:
PRETREATMENT PROGRAM COORDINATION CHECKLIST
SECTION 5: DATA MANAGEMENT AND PUBLIC PARTICIPATION
INSTRUCTIONS: Complete during on-site audit interview.
A. Data Management
1) Are SIU files/records: Computerized
Hard copy
Both
2) Does <CITY> believe they have an ample source of technical documents for implementing their pretreatment program?
YES NO
Explain:
3) Does <CITY> keep appraised of current regulations?
YES NO
If yes, describe procedures:
4) Are data on SIU permit issuance and compliance status readily available?
YES NO
Explain:
5) Are inspection and sampling records well organized and readily retrievable?
YES NO
Explain:
6) Can SIU monitoring data be retrieved by:
YES NO
a. Industry name
b. Pollutant type
c. Industrial category or type
d. SIC Code
e. SIU discharge volume
f. Geographic location
g. Other (specify)
7) Are all records maintained for at least three years?
YES NO
Explain archive and disposal procedures:
B. Public Participation

1) Are program records available to the public?
YES NO
Explain:
2) Have SIU's requested that data be held confidential?
YES NO
3) Does <CITY> have procedures to address confidentiality?
YES NO
Explain:
4) Has public comment been solicited during revisions to the SUO?
YES NO
Explain:
5) Are there significant public or community issues impacting the implementation and enforcement of <CITY>'s pretreatment program?
YES NO
If yes, explain:
6) Does implementation of <CITY>'s pretreatment program include:
YES NO
a. Annual publication of significant violators [40 CFR 403.8(f)(2)(vii)]
b. Notice to interested parties when local limits are developed (40 CFR 403.5(c)(3))
c. Adequate procedures for handling confidential information [40 CFR 403.14(a)]
d. Unrestricted access to effluent data provided to the public (40 CFR 403.14(b)]
e. Maintenance of records for at least three years (40 CFR 403.12(o)(2)]
f. Well documented activities in SIU files
PRETREATMENT PROGRAM COORDINATION CHECKLIST
SECTION 6: PROGRAM FILE REVIEW
INSTRUCTIONS: Review <CITY>'s files on a representative sample of SIU's (at least two files), attempting to include at least one noncomplying SIU and one categorical SIU.
A yes or (Y) answer is appropriate if the file contains the information.
No or none should be designated with an (N).
Other codes that can be utilized are;
(NR) Not Required,
(NA) Not Applicable,
(M) Monitoring data submitted,
(S) Solvent management plan submitted,
(U) Monitoring data/SMR required but not included in a file.
SIU #1
SIU #2
SIU #3
SIU #4
SIU #5
A. File Contents
1) Does the SIU file contain:
a) Industrial waste survey information?
b) Description of wastewater flows and pollutants?
c) Discharge permit application?
d) Permit fact sheet?
e) Control documents?
f) <CITY>'s sampling results?
g) <CITY>'s inspection reports?
h) SIU reports (BMR, 90-day etc.)?
i) SIU self-monitoring results?
j) Correspondence?
k) Telephone log?
l) Meeting notes?
m) Determination of SIU compliance status?
B. Control Mechanism Evaluation
SIU #1

SIU #2
SIU #3
SIU #4
SIU #5
1) Is the SIU discharge permit contract, etc., unexpired?
2) Does it cite <CITY>'s legal authority?
3) Does it contain applicable effluent limits?
4) Is the application of applicable categorical standards correct?
5) Is the application of applicable local limits correct?
6) Application of most stringent limit?
7) Are types of samples for self-monitoring specified?
8) Is sample location(s) identified?
9) Are applicable SIU reporting requirements specified?
10) Is the application of TTO or TOMP alternative correct?
11) Does it contain classification by category / subcategory?
12) Does it contain classification by new /existing source?
13) Calculation and application of production-based standards?
14) Calculation and application of CWF or FWA?
15) Are standard conditions included for:
a) Right of entry?
b) Records retention?
c) Penalty provisions?
d) Revocation of permit?
e) Nontransferability?
f) Notice of slug loading?
g) Permit expiration date?
C. <CITY> Compliance Monitoring Evaluation
Within the last twelve months:
SIU #1
SIU #2
SIU #3
SIU #4
SIU #5
1) How many times was the SIU inspected?2) Approximately how many sampling visits were made to the SIU?3) Were all the parameters specified in the control mechanism evaluated?4) Indicate TTO monitoring status?5) Are monitoring results well documented?
a) Date sample taken
b) Type of sample
c) Sampler name
d) Condition of sample, preservatives added, etc.
e) Chain-of-custody reports
f) Analytical procedures used
6) Did the SIU inspection report have adequate documentation to support potential enforcement actions? Did it include:
a) Date and time of inspection
b) Name of company official contacted
c) Verification of production and flow rates, if needed
d) Identification of sources and types of wastewater (regulated, unregulated, dilution of flow, etc.)
e) Problems with pretreatment facilities
f) Evaluation of SIU self monitoring equipment & methods
g) Other (describe)
7) Was the SIU evaluated / reevaluated for the need of a SCP?
D. SIU Self-Monitoring Evaluation
SIU #1
SIU #2
SIU #3
SIU #4

SIU #5
1) Have periodic SIU self-monitoring reports been submitted (how often)?
2) Were the required parameters evaluated?
3) Did the SIU comply with the reporting
requirements in the control mechanism?
E. <CITY> Enforcement Initiatives
SIU #1
SIU #2
SIU #3
SIU #4
SIU #5
1) Did <CITY> identify all SIU violations?
a) In <CITY>'s monitoring results?
b) In SIU self-monitoring results?
2) Was the SIU notified of all violations?
3) Was compliance/enforcement action taken by <CITY>?
4) Did <CITY>'s action result in the SIU achieving compliance within 3 months?
F. Spills / Slug Loading
SIU #1
SIU #2
SIU #3
SIU #4
SIU #5
1) Has the SIU been responsible for spills or slug loads discharged to the POTW?
2) If yes, does the file contain documentation regarding:
a) Notification by the SIU of the spill or slug?
b) <CITY>'s response to notification?
c) <CITY's response to the discharge?
d) The effect of the spill on the POTW?
G. Industry Information From File Review
FILE 1
Industry Name:
Industry Address:
Type of Industry:
File/ID No.:
Flow(gpd):
SIC:
FILE 2
Industry Name:
Industry Address:
Type of Industry:
File/ID No.
Flow(gpd):
SIC:
FILE 3
Industry Name:
Industry Address:
Type of Industry:
File/ID No.
Flow(gpd):
SIC:
FILE 4
Industry Name:
Industry Address:
Type of Industry:
File/ID No.
Flow(gpd):

SIC:
FILE 5
Industry Name:
Industry Address:
Type of Industry:
File/ID No.:
Flow(gpd):
SIC:
PRETREATMENT PROGRAM COORDINATION CHECKLIST
SECTION 7: PROGRAM RESOURCES
INSTRUCTIONS: Complete during on-site audit interview.
A. Personnel and Equipment
1) Does <CITY> have the same or greater resources (full time equivalents and equipment) than was stated in the EPA approved submission?
YES NO
If no, describe the nature of the reduced resources:
2) Is an adequate number of personnel available for the following program areas:
YES NO
a) SIU sampling
b) SIU sampling analyses
c) SIU inspections
d) Administration (including recordkeeping / data management)
e) Legal
f) Data analysis, review and response
If no explain:
3) Does <CITY> believe their personnel have appropriate training?
YES NO
Explain:
4) Does <CITY> believe their sampling equipment is adequate?
YES NO
Explain:
5) Does <CITY> believe their safety equipment is adequate?
YES NO
Explain:
6) Does <CITY> believe their number of vehicles are adequate?
YES NO
Explain:
7) Does <CITY> have access to adequate analytical equipment?
YES NO
a) Conventional pollutant analysis equipment (e.g., lab oven, precision balance, pH meter)
b) Atomic absorption spectrophotometer
c) Gas chromatograph
d) Gas chromatograph / mass spectrometer
e) Other
B. Funding
1. Is <CITY>'s annual budget for program implementation the same or greater than that projected in <CITY>'s pretreatment annual report?
YES NO
If no, describe the reason(s) it is less:
2) Have any problems in program implementation been observed which appear to be related to inadequate funding?
YES NO
If yes, describe:
3) Is funding expected to continue near the current level?
YES NO
Will it:

INCREASE:
DECREASE:
SUPPORTING DOCUMENTATION FOR AUDIT CHECKLIST
Copy of SUO local limits from the approved program
Copy of <CITY>'s SUO
<CITY>'s sampling and inspection schedule for SIU's
List of all SIU's not sampled or not inspected in the past year
Copy of <CITY>'s chain-of-custody form
List of all noncomplying industries and history of enforcement actions taken
Copy of Industrial Waste Survey (IWS) procedures
Copy of Enforcement Response Plan (ERP)
List of technical documents available?
SIU SITE VISIT REPORT FORM
INSTRUCTIONS: Record observations made during the SIU site visit. Provide as much detail as possible.
Name and address of industry:
Date of visit:
Time of visit:
Provide name(s) and title(s) of inspector(s):
NAME
TITLE
Provide name(s) and title(s) of industry representative(s).
NAME
TITLE
Classification assigned by <CITY>:
Provide the following documentation:
1. Describe the products manufactured or the services provided by the SIU.
2. Verify <CITY>'s classification or discuss any errors.
3. Describe any significant changes in processes or flow.
4. Identify the raw materials and processes used. (Include discussion of where wastewater is produced and discharged and attach a
step-by-step diagram if possible.)
5. Describe the sample location and any differences in <CITY>'s and SIU locations.
6. Describe the treatment system which is in place.
7. Identify the chemicals that are maintained onsite and how they are stored. (Attach list of chemicals, if available.) Discuss the
adequacy of spill prevention.
8. Discuss whether hazardous wastes are stored or discharged and any related problems.

ACRONYM LIST	ACRONYM TERM
AA	Atomic Absorption Spectrophotometer
ADEQ	Arizona Department of Environmental Quality
ADHS	Arizona Department of Health Services
AMSA	Association of Metropolitan Sewerage Agencies
AMWUA.	Arizona Municipal Water Users Association
AWPCA.	Arizona Water and Pollution Control Association
AWWA	American Water Works Association
BMR.	Baseline Monitoring Report
BMP.	Best Management Practices
BNA.	Bureau of National Affairs

CERCLA	Comprehensive EnvironmentalRemediation, Compensation, and Liability Act
CFR.	Code of Federal Regulations
CIU.	Categorical Industrial User
COD.	Chemical Oxygen Demand
CWF.	Combined Wastestream Formula
EPA.	United States Environmental Protection Agency
ERG.	Enforcement Response Guide
ERP.	Enforcement Response Plan
FWA.	Flow-Weighted Average
GC/MS.	Gas Chromatograph/Mass Spectrometer
GC	Gas Chromatograph
gpd.	gallons per day
CP.	IInductively Coupled Plasma
IGA.	ntergovernmental Agreement
IPP.	.IIndustrial Pretreatment Program
IU	Industrial User
IWS.	Industrial Waste Survey
NHLW	Non-Hazardous Liquid Waste
NOV.	Notice Of Violation
NPDES.	National Pollutant Discharge Elimination System
O&M.	Operation and Maintenance
PCE.	Pretreatment Compliance Evaluation
PCI.	Pretreatment Compliance Inspection
POTW	Publicly Owned Treatment Works
Program.	Industrial Pretreatment Program
QA/QC.	Quality Assurance/Quality Control
RCRA	Resource Conservation and Recovery Act
SCP.	Slug Control Plan
SIC.	Standard Industrial Classification
SIU.	Significant Industrial User
SMR.	Self Monitoring Report
SNC.	Significant Non-Compliance
SROG	Sub-Regional Operating Group
SS	Suspended Solids
SUO.	Sewer Use Ordinance
TOMP	Toxic Organic Management Plan
TTO.	Total Toxic Organics
UST.	Underground Storage Tank
WEF.	Water Environmental Federation

WWTP . . . . . Wastewater Treatment Plant

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COMPLIANCE TASK FORCE

a. CTF Roles

The City of Scottsdale's Compliance Task Force (CTF) is a nine--twelve member matrix management team developed as part of the Environmental Management System (EMS) initiative. Task force members are department heads who represent a broad cross-section of City departments. They were selected by the Environmental Management Office, based on their technical expertise, to provide upper management review of the City's comprehensive Environmental Management System (EMS).

CTF roles are to: 1) annually review policies, guidelines and procedures drafted by the Environmental Management Office for inclusion in the City's EMS Program, 2) support and promote these guidelines throughout the organization, 3) report operational impacts of compliance with the guidelines on individual departments, 4) annually audit the executive report on the City's regulatory compliance performance, and 5) make recommendations for changes and variances to environmental compliance program guidelines.

b. CTF members

Steve Bennett - Environmental Attorney	Bob Berlese - Water Quality Director
Al Dreska - G.M. Municipal Services	Bill Exham - G.M. CM & R
Jim Ford - Fire Marshal/Asst. Fire Chief	John Golden - Fleet Director
Randy Grant - Chief Environmental Officer	Steve Hogan - G.M. Transportation
Myron Kuklok - Risk Management Director	David Mansfield - G.M. Water Resources
Larry D. Person - Sr. Environmental Coordinator	Monroe Warren - Purchasing Director

c. CTF scope of reviews

The Compliance Task Force shall review EMS system policies, and City guidelines, procedures and practices in the following environmental arenas:

Air Quality -- Control Measures committed to MAG
Environmental Regulatory Compliance
Hazardous Waste Program Guidelines
Household Hazardous Waste
Pollution Prevention
Source Reduction
Technical Training for staff
Waste Minimization
Water Quality

d. Annual Reviews

The Compliance Task Force (CTF) will annually review the City's EMS and its performance regarding:

1. Routine Hazardous Waste Streams
2. Non-Routine Hazardous Waste Generation

Management Review

Audit Criteria:

1. Is senior management, on a regular basis, reviewing the structure and performance of the EMS to determine the effectiveness of the EMS and identify potential opportunities for improvement?

2. Do management reviews address the possible need for changes to policy, objectives and other elements of the organization's EMS, in light of performance information, audit results, changing circumstances and the commitment to continual improvement?

3. Is senior management provided sufficient information for this review, including the results of:
   -- monitoring and measurement
   -- EMS audits
   -- compliance status
   -- corrective and preventive actions
   -- progress towards objectives and targets

4. Is the review (including the decisions taken) recorded and are the records kept for a suitable period of time?

5. Are these management reviews planned and organized by the EMS management representative?

3. Special Waste Streams
4. Recycled Waste Streams
5. Management of Used Oil
6. "Found" Hazardous Waste events
7. Pollution Prevention Achievements
8. Source Reduction Achievements
9. Waste Minimization Efforts
10. Technical Training for Stafff
11. Non-Hazardous Waste Streams
12. City Procurement Policies and Guidelines
13. Less toxic and non-toxic alternatives lists
14. Prohibited/restricted chemical purchases
15. City Contractors' environmental performance
16. Annual review/recommendations to the City Manager's Office

e. Additional Reviews

1. Review the training program prescribed for workers who handle hazardous materials/waste

2. Review the written Emergency Response and Contingency Plans for City facilities

3. Approve exceptions to the City's lists of chemicals for procurement and lists of prohibited or restricted chemicals.

4. Conduct an annual audit of City procurement practices (central purchasing and ProCard purchases of hazardous materials and recommend alternatives)

5. Investigate and pre-approve any/all hazardous waste transporters and TSD facilities with whom the City contracts for disposal services. This review applies only to the City's routinely generated hazardous waste streams.

f. Written Recommendations

As part of the Environmental Management System (EMS), the CTF will draft written reports on the City's efforts to maintain environmental compliance. Written recommendations to specific departments to correct deficiencies in advance of outside regulatory compliance inspections will also be drafted as needed.